# SCIENCE

## Author Index to Volume 216 April-June 1982

Published by the American Association for the Advancement of Science 1515 Massachusetts Avenue, NW, Washington, D.C. 20005

Abbott, lan: review of Island Ecosystems, edited by Dieter Mueller-Dombois, Kent W. Bridges, and Hampton L. Carson. v216 p47

Abelson, Philip H. (editorials): Employment of engineers and scientists. v216 p1177 11 June 82. Essential federal information services. v216 p937 28 May 82. Improvement of grain crops. v216 p247 16 Apr 82. Prospects for support of R & D in fiscal 1983. v216 p9 2 Apr 82. Adiga, P. Radhakantha. See Murty, C. V. Pappas.

Ramana

Adkisson, Perry L.; Niles, George A.; Walker, J. Knox; Bird, Luther S.; Scott, Helen B.: Controlling cotton's insect pests: a new sys-

tem. v216 p19-22 2 Apr 82. Agris, Paul F. and Campbell, Iain C.: Proton nuclear magnetic resonance of intact Friend leukemia cells: phosphorylcholine in-creases during differentiation. v216 p1325-1327 18 June 82.

Aiken, Lewis R.: review of The Rise and Fall of National Test Scores, edited by Gilbert R. Austin and Herbert Garber. v216 p863-865 21 May 82.

21 may 62.
Akil, H. See Watson, S. J.
Akood, Mustafa. See Jensen, James B.
Albrecht, Duane G.; De Valois, Russell L.;
Thorell, Lisa G.: Receptive fields and the optimal stimulus (technical comment). v216 p205 9 Apr 82.

Alcala, Jose. See Welsh, Michael J. Alderson, Stanley: Freedom of expression (letter), v216 p1046 4 June 82. Alexander, Martin. See Bartholomew, Gene

Alstad, D. N.: Current speed and filtration rate link caddisfly phylogeny and distributional patterns on a st. sam gradient. v216 p533-

534 30 Apr 82.
Alvarez, Luis W. See Alvarez, Walter.
Alvarez, Robert: AAAS radiation session (letter). v216 p462, 464 30 Apr 82.

Alvarez, Walter; Asaro, Frank; Michel, Helen V.; Alvarez, Luis W.: Iridium anomaly approximately synchronous with terminal Eocene extinctions. v216 p886–888 21 May

Alvo, P. See Desjardins, R. L. Amole, Babatunde O. See Clarkson, Allen B.,

Anderson, R. F.; Bacon, M. P.; Brewer, P. G.: Elevated concentrations of actinides in Mono Lake. v216 p514-516 30 Apr 82. Anderson, R. R. See MacLaughlin, J. A. Anderson, Roger N. See Mangelsdorf, Paul

Appel, James B. See White, Francis J. Arat, M. See Gordon, E. R. Arnason, J. T. See Lambert, J. D. H. Arst, Denise. See Baudry, Michel. Arman, H. A. See Perlow, M. J. Asaro, Frank. See Alvarez, Walter Ascher, John A. See Pedersen, Cort A. Aster, Jon C. See Welsh, Michael J. Athenstaedt, Herbert; Claussen, Helge; Schaper, Daniel: Epidermis of human skin:

v216 p1018-1020 28 May 82. Ausich, William I. and Bottjer, David J.: Tiering in suspension-feeding communities on soft substrata throughout the Phanerozoic. v216

pyroelectric and piezoelectric sensor layer.

p173-174 9 Apr 82. Austen, K. F. See Weiss, J. Woodrow. Avnimelech, Yoram; Troeger, Bill W.; Reed, Lester W.: Mutual flocculation of algae and clay: evidence and implications. v216 p63– 65 2 Apr 82.

Babco, Eleanor L. See Vetter, Betty M.

Bacon, M. P. See Anderson, R. F. Badr, Fouad. See Dalterio, Susan. Baily, Martin Neil: review of Rational Expectations and Econometric Practice, edited by Rogert E. Lucas, Jr., and Thomas J. Sar-gent, and Studies in Business-Cycle The-ory, by Robert E. Lucas, Jr. v216 p859–862

21 May 82.

Baker, Thomas C. and Kuenen, L. P. S.:
Pheromone source location by flying moths: a supplementary non-anemotactic mechanism. v216 p424-427 23 Apr 82.

Ballatori, Nazzareno and Clarkson, Thomas W.: Developmental changes in the biliary excretion of methylmercury and glutathione.

v216 p61-63 2 Apr 82.
Beltimore, David; Flory, Paul J.; Kornberg, Arthur; Kusch, Polykarp; Nirenberg, Marshall W.; Penzias, Arno A.; Kac, Mark; Cohen, Jack: Degrees revoked in Soviet Union

(letter). v216 p360 23 Apr 82.

Baltimore, David; Berg, Paul; Bloch, Konrad
E.; Brown, Donald D.; Kornberg, Arthur;
Nathans, Daniel; Smith, Hamilton O.; Watson, James D.; Thomas, Lewis: Plea to the scientific community (letter). v216 p1046 4 June 82

Baluda, Marcel A. See Rushlow, Keith E. Balzer, W. See Suess, E. Bandy, Dale E. See Sanchez, Pedro A Baraldi, Mario and Zeneroli, Maria L.: Experimental hepatic encephalopathy: changes in

the binding of γ-aminobutyric acid. v216 p427–429 23 Apr 82.
Barash, David P.: The missile debate (letter). v216 p932 28 May 82.

Barbour, Alan G. See Burgdóreer, Willy.
Bardana, Emil J., Jr. See Malinow, M. René.
Barghoorn, Elso S. See Lenk, Cecilia.
Barnosky, Anthony D.: Locomotion in moles
(Insectivora, Proscalopidae) from the middle Tertiary of North America. v216 p183—

185 9 Apr 82.

Barr, Sumner: Skirt clouds associated with the Soufriere eruption of 17 April 1979. v216 p1111-1112 4 June 82.

and Heffter, Jerome L.: Meteorological analysis of the eruption of Soufriere in April

1979. v216 p1109-1111 4 June 82. Bartholomew, G. A. See Morgan, K. R. Bartholomew, Gene W. and Alexander, Martin: Global carbon monoxide fluxes: inappropriate measurement procedures (technical comment). v216 p761–762 14 May 82. Bartke, Andrzej. See Dalterio, Susan. Barton, John H.: The international breeder's

rights system and crop plant innovation. v216 p1071-1075 4 June 82.

Basile, Brenda. See Katze, Jon R. Battelle, B.-A.; Evans, J. A.; Chamberlain. S. C .: Efferent fibers to Limulus eyes synthesize and release octopamine. v216 p1250-1252 11 June 82.

Baudry, Michel; Fuchs, Jannon; Kessler, Markus; Arst, Denise; Lynch, Gary: Entorhinal cortex lesions induce a decreased calcium

cortex resions induce a decreased calcium transport in hippocampal mitochondria. v216 p411–413 23 Apr 82.

Bayer, Shirley A.; Yackel, James W.; Puri, Prem S.: Neurons in the rat dentate gyrus granular layer substantially increase during juvenile and adult life. v216 p890–892 21 May 82.

Baylin, Stephen B. See Luk, Gordon D. Beckman, Scott W. See Wrenn, John H. Benach, Jorge L. See Burgdoreer, Willy. Bender, Michael L. See Maris, Cynthia R. P. Bennett, Kathleen M.: Lead regulations (let-

ter), v216 p1046, 1048 4 June 82. Bensasson, René V. See Moore, Ana L Benson, Janet M. See Dahl, Alan R. Berg, Paul. See Baltimore, David.
Berger, W. H.: review of Foraminifera, by John

R. Haynes. v216 p403–404 23 Apr 82. Berl, Soll. See Plaitakis, Andreas. Bernays, E. A. and Woodhead, S.: Plant phe-

nols utilized as nutrients by a phytophagous insect. v216 p201–203 9 Apr 82. Berns, Kenneth I. See Youngner, Julius S.

Berns, Kermenn I. See Youngher, Junius S. Biggs, Sara. See Devash, Yair. Bignell, R. C. See Hjellming, R. M. Bignon, J. See Sebastien, P. Bird, Luther S. See Adkisson, Perry L. Bitar, K. N. and Makhlouf, G. M.: Relaxation of

isolated gastric smooth muscle cells by vasoactive intestinal peptide. v216 p531-533 30 Apr 82.

Black, Roberta J. See Preble, Olivia T.

d

Blackburn, Celia W. See Hayes, Cecil E. Blessing, W. W. See Wiley, Ronald G. Bloch, Konrad E. See Baltimore, David.

Bloembergen, Nicolaas: Nonlinear optics and Spectroscopy, v216 p1057–1064 4 June 82.
Blum, Kenneth; Briggs, Arthur H.; Elston, Steven F. A.; DeLallo, Leonard; Sheridan, Peter J.; Sar, Madhabananda: Reduced leuter 1. cine-enkephalin-like immunoreactive substance in hamster basal ganglia after long-term ethanol exposure, v216 p1425–1427

Bocko, Mark. See Douglass, David H. Bohren, Craig F.: Nonrandom bubbles (letter). v216 p682 14 May 82. Boland, Michael T. See Jensen, James B.

Bottier, David J. See Ausich, William I. Bourque, Bruce J.: review of Foundations of

Northeast Archaeology, edited by Dean R. Snow. v216 p726-727 14 May 82. Bowden, Douglas M.: Animals in the laboratory (letter). v216 p682, 684 14 May 82. Bowen, D. H. Michael: Journal space (letter).

v216 p1274 18 June 82.

Bowling, Allen C. and DeLorenzo, Robert J.: Micromolar affinity benzodiazepine receptors: identification and characterization in central nervous system. v216 p1247–1250

Bowman, Joseph: The missile debate (letter). v216 p932 28 May 82.

Prach, E. J. See Desjardins, R. L. Braestrup, C.; Schmiechen, R.; Neef, G.; Nielsen, M.; Petersen, E. N.: Interaction of convulsive ligands with benzodiazepine receptors. v216 p1241—1243 11 June 82.
Brennan, Patrick J.: Leprosy vaccine (letter). v216 p362 23 Apr 82.
Brewer, P. G. See Anderson, R. F.

Briggs, Arthur H. See Blum, Kenneth. Broad, William J. (news and comment): Court upholds privacy of unpublished data. v216 p34, 36 2 Apr 82. GAO ignores flaw in concept of space war. v216 p499 30 Apr 82. Journals: fearing the electronic future. v216 p964-966, 968 28 May 82. Laser wars on Capitol Hill. v216 p1082-1083 4 June 82. A poor start for the militarization of space. v216 p599-602 7 May 82. Publisher settles suit, says clone book is a fake. v216 p391 23 Apr 82. A requiem for Isabelle. v216 p158 9 Apr 82. Researcher denied future U.S. funds. v216 p1081 4 June 82. Samios named director of Brookhaven. v216 p831 21 May 82. Slave labor on campus: the unpaid postdoc. v216 p714–715 14 May 82. Spy chief warns labs of future Soviet threat. v216 p156-157 9 Apr 82. Survival of the fittest in the Falklands. v216 p1389-1390, 1392 25 June 82. Space weapons and nuclear effects (letter). v216 p1364 25 June 82. Brodrick, James R. See Hannon, Bruce.

Brodrick, James R. See Hannon, Bruce. Brown, Donald D. See Baltimore, David. Brown, Laurie M.: review of Night Thoughts of a Classical Physicist, by Russell McCormmach. v216 p880–881 21 May 82. Brownell, Gordon L.; Budinger, Thomas F.; Lauterbur, Paul C.; McGeer, Patrick L.: Omitted reference (letter). v216 p464 30

Brunn, John: George, not Charles (letter). v216 p1274 18 June 82.

Buckley, Edward H.: Accumulation of airborne polychlorinated biphenyls in foliage. v216

p520–522 30 Apr 82. Budinger, Thomas F. See Brownell, Gordon

Bueno, Lionel and Ferre, Jean-Pierre: Central regulation of intestinal motility by somato-

regulation of intestinal motility by somato-statin and cholecystokinin octapeptide. v216 p1427–1429 25 June 82. Bunney, W. E. See Sternberg, D. E. Burgdoreer, Willy; Barbour, Alan G.; Hayes, Stanley F.; Benach, Jorge L.; Grunwaldt, Edgar; David, Jeffrey P.: Lyme disease—a tick-borne spirochetosis? v216 p1317–1319 18 June 82.

burghardt, Gordon M.: review of *The Foundations of Ethology*, by Konrad Z. Lorenz. v216 p170–171 9 Apr 82.

Burke, Kevin: review of Dynamics of Passive

Burke, Kevin: review of *Dynamics of Passive Margins*, edited by R. A. Scrutton. v216 p884 21 May 82.
Burlingame, Rufus. *See* Lattman, Eaton.
Burwell, Calvin C. and Weinberg, Alvin M.:
Reactor decommissioning (letter). v216 p682 14 May 82.
Buseck, Peter R. *See* Smith, P. P. K.
Buskirk, Daniel R. *See* Lyons, Michael J.
Butler, Robert F. *See* Marshall, Larry G.

Campbell, D. B. See Kamoun, P. G. Campbell, Iain C. See Agris, Paul F.

Caneva, Kenneth L.: review of Conceptions of Ether, edited by G. N. Cantor and M. J. S. Hodge. v216 p725–726 14 May 82. Cantú, José María and Ibarra, Bertha: Phosphoglucomutase: evidence for a new locus

expressed in human milk. v216 p639-640 7

Capra, J. Donald. See Sirns, John.
Carbonetto, S. T.; Gruver, M. M.; Turner, D.
C.: Nerve fiber growth on defined hydrogel substrates. v216 p897–899 21 May 82.

Carey, Francis G.: A brain heater in the sword-fish. v216 p1327–1329 18 June 82. Carey, William D.: Dilemmas of scale (editori-al). v216 p1277 18 June 82.

Carlson, Paul R., Jr., and Forrest, Joseph:
Uptake of dissolved sulfide by Spartina alterniflora: evidence from natural sulfur iso-

tope abundance ratios. v216 p633-635 7 May 82.

Carman, Max F., Jr. See Hsü, Kenneth J. Case, Thomas A. See Hayes, Cecil E. Cashdan, Elizabeth: review of Hunter-Gatherer Foraging Strategies, edited by Bruce Winterhalder and Eric Alden Smith. v216

p1308–1309 18 June 82.
Casten, Richard E.: review of *Nuclear Structure*, edited by K. Abrahams, K. Allaart, and A. E. L. Dieperink. v216 p1104 4 June 82.

Cazden, Courtney B.: review of The Language of Children Reared in Poverty, edited by Lynne Feagans and Dale Clark Farran.

Lynne Feagans and Dale Clark Farran. v216 p865–866 21 May 82.
Chabaud, A. G.: review of Parasitological Topics, edited by Elizabeth U. Canning. v216 p978 28 May 82.
Chabner, Bruce. See Tamarkin, Lawrence.

Chabot, J. F. See Chandra, S.
Chalfie, Martin. See Horvitz, H. Robert.
Chamberlain, S. C. See Battelle, B.-A.
Chandra, S.; Chabot, J. F.; Morrison, G. H.;

Leopold, A. C.: Localization of calcium in amyloplasts of root-cap cells using ion mi-

croscopy. v216 p1221-1223 11 June 82. Chang-Tao, Xu. See Jolesz, Ferenc A. Channabasavaiah, K. See Heber, D. Chase, Ivan D.: Behavioral sequences during dominance hierarchy formation in chickens. v216 p439–440 23 Apr 82.

v216 p439-440 23 Apr 82.
Chausmer, Arthur B.; Stevens, Michael D.;
Severn, Charles: Autoradiographic evidence for a calcitonin receptor on testicular
Leydig cells. v216 p735-736 14 May 82.
Chernick, Victor and Craig, Randy J.: Naloxone reverses neonatal depression caused

by fetal asphyxia. v216 p1252-1253 11

Chevillard, C. and Saavedra, J. M.: High angiotensin-converting enzyme activity in the neurohypophysis of Brattleboro rats. v216 p646-647 7 May 82. Chirikjian, Jack G. See Rushlow, Keith E.

Chisholm, Brian S.; Nelson, D. Erle; Schwarcz, Henry P.: Stable-carbon isotope ratios as a measure of marine versus terrestrial protein in ancient diets. v216 p1131-1132 4 June 82.

1132 4 June 82.
Christie, W. H. See Gentry, Robert V.
Chuan, Raymond L. See Woods, David C.
Civin, Curt I. See Luk, Gordon D.
Clark, Michael W.; Leonard, Kevin; Lake,
James A.: Ribosomal crystalline arrays of
large subunits from Escherichia coli.. v216 p999-1001 28 May 82.

Clarkson, Allen B., Jr., and Amole, Babatunde O.: Role of calcium in trypanocidal drug action. v216 p1321–1323 18 June 82. Clarkson, Thomas W. See Ballatori, Nazzar-

Claussen, Helge. See Athenstaedt, Herbert. Clawson, Gary A. See Purrello, Francesco. Cleveland, William S.; Diaconis, Persi; McGill, Robert: Variables on scatterplots look more

Robert: Variables on scatterplots look more highly correlated when the scales are increased v216 p1138–1141 4 June 82.
Clough, David W.; Kunkel, Louis M.; Davidson, Richard L.: 5-Azacytidine-induced reactivation of a herpes simplex thymidine kinase gene. v216 p70–73 2 Apr 82.
Clyde, W. A., Jr. See Hu, P. C.
Coe, Michael D.: review of Indian Clothing before Cortés, by Patricia Rieff Anawalt. v216 p870–871 21 May 82.
Cofer, Wesley R., Ill. See Schryer, David R. Cohen, Irun R. See Shechter, Yoram.

Cohen, Jack. See Snecnier, Yoram.
Cohen, Jack. See Baltimore, David.
Cohen, Michael. See Tamarkin, Lawrence.
Cole, R. M. See Hu, P. C.
Cole, Randolph P.: Myoglobin function in exercising skeletal muscle. v216 p523–525 30

Apr 82 Colles, Nancy. See Weiss, J. Woodrow.
Collier, A. M. See Hu, P. C.
Collins, J. F. See Croucher, M. J.
Conner, Benjamin N. See Dickerson, Richard

Conney, A. H. See Lasker, J. M. Connors, Barry W.; Ranson, Bruce R.; Kunis, David M.; Gutrick, Michael J.: Activity-dependent K<sup>+</sup> accumulation in the developing rat optic nerve. v216 p1341–1343 18 June

Conrad, R. See Seiler, W. Cooper, Robert S. See Griffith, Harry A. Corasanti, James G.; Hobika, Grant H.; Markus, Gabor: Interference with dimethylhy-drazine induction of colon tumors in mice by e-aminocaproic acid, v216 p1020-1021 28

Corey, E. J. See Weiss, J. Woodrow Cork, Linda C. See Struble, Robert G. Costanza, Robert: Economic values and embodied energy (technical comment). v216 p1143 4 June 82.

Cotman, Carl W. See Mena, E. Edward. Cotter, John L.: Science advice (letter). v216 p242 16 Apr 82.

Cowan, G. A. and Haxton, W. C.: Solar neutri-no production of technetium-97 and technetium-98. v216 p51-54 2 Apr 82.

Coy, David H. See Labrie, Fernand Craig, Alan K. See Shimada, Izumi. Craig, Randy J. See Chernick, Victor. Craig, Chirley. See Malinow, M. René

Crain, Shirley. See Malinow, M. Hene.
Cronn, Dagmar R. and Nutmagul, Winai: Volcanic gases in the April 1979 Soufriere eruption. v216 p1121–1123 4 June 82.
Croucher, M. J.; Collins, J. F.; Meldrum, B. S.:
Anticonvulsant action of excitatory amino acid antagonists. v216 p899–901 21 May

Crozier, Ross H.: review of *Biosystematics of Social Insects*, edited by P. E. Howse and J.-L. Clément. v216 p403 23 Apr 82.
Cruikshank, Dale P.: Asteroid results (letter).

v216 p800 21 May 82.

Cuénod, Michel. See Wiklund, Leif.
Cuello, A. C. See Osborne, N. N.
Culliton, Barbara J. (news and comment): The
academic-industrial complex. v216 p960–
962 28 May 82. The Hoechst department at Mass General, v216 p1200-1203 11 June 82. The MGH-Hoechst agreement. v216 p1201 11 June 82. Monsanto gives Washington U. \$23.5 million. v216 p1295-1296 Ingron U. \$23.5 million. v216 p1295-1296
18 June 82. New biology foundation offers fellowships. v216 p603 7 May 82. Pajaro Dunes: the search for consensus. v216 p155-156, 158 9 Ap: 82. Why the doors stayed closed. v216 p155 9 Apr 82. Wyngarden meets the press. v216 p967 28 May 82.

Cunnold, D. M. See McCormich, M. Patrick. Curtis, Garniss H. See Marshall, Larry G.

Dahl, Alan R.; Hadley, William M.; Hahn, Fletcher F.; Benson, Janet M.; McClellan, Roger O.: Cytochrome P-450-dependent monooxygenases in olfactory epithelium of dogs: possible role in tumorigenicity. v216 p57–59 2 Apr 82.

Dalgren, Rolf: review of An Integrated System of Classification of Flowering Plants, by Arthur Cronquist. v216 p1217–1218 11

June 82

Dalterio, Susan; Badr, Fouad; Bartke, Andrzej; Mayfield, Denise: Cannabinoids in male mice: effects on fertility and spermatogenesis. v216 p315–316 16 Apr 82.

Danforth, David. See Tamarkin, Lawrence.
Daniels, Alejandro J.; Dean, Grace; Viveros,
O. Humberto; Diliberto, Emanuel J., Jr.: Secretion of newly taken-up ascorbic acid by adrenomedullary chromaffin cells. v216 p737-739 14 May 82. David, E. E., Jr.: National Engineering Action Conference (editorial). v216 p465 30 Apr

David, Jeffrey P. See Burgdoreer, Willy. David, Nicholas: review of Symbols in Action, by Ian Hodder. v216 p1402 25 June 82

Davidson, Richard L. See Clough, David W. Davis, C. William and Finn, Arthur L.: Sodium transport inhibition by amiloride reduces basolateral membrane potassium conduc-tance in tight epithelia. v216 p525-527 30 Apr 82.

Davis, Warren F.: Peace supporters (letter).

v216 p6 2 Apr 82.

de Lacoste-Utamsing, Christine and Hololoway, Ralph L.: Sexual dimorphism in the human corpus callosum. v216 p1431–1432 25 June 82

De Martinis, Carlo. See De Pirro, Roberto De Pirro, Roberto; Lauro, Renato; Testa, Iva-no; Ferretti, Ginofabrizio; De Martinis, Car-lo; Dellantonio, Renzo: Decreased insulin receptors but normal glucose metabolism in Duchenne muscular dystrophy. v216 p311-

De Valois, Russell L. See Albrecht, Duane G. Dean, Grace. See Daniels, Alejandro J. Deck, B. L. See Simpson, H. J. DeLallo, Leonard. See Blum, Kenneth.

Dellantonio, Renzo. See De Pirro, Roberto. DeLorenzo, Robert J. See Bowling, Allen C Demarque, Pierre: review of *Physical Processes in Red Giants*, edited by Icko Iben, Jr., and Alvio Renzini. v216 p46–47 2 Apr

DeMoss, Ernest. See Tamarkin, Lawrence.

Dewids, Enters. See Fandkin, Lawrence.
Deo, M. G.: Leprosy research in India (letter).
v216 p1172, 1174 11 June 82.
Desjardins, R. L.; Brach, E. J.; Alvo, P.;
Schuepp, P. H.: Aircraft monitoring of surface carbon dioxide exchange. v216 p733— 735 14 May 82.

735 14 May 82.

Devash, Yair; Biggs, Sara; Sela, Ilan: Multiplication of tobacco mosaic virus in tobacco leaf disks is inhibited by (2'-5') oligoadenylate. v216 p1415-1416 25 June 82.

Devol, Allan H. See Wissmar, Robert C.

Diaconis, Persi. See Cleveland, William S.

Diamond, Jared M.: Rediscovery of the yellow-fronted gardener bowerbim. v216 p431-434 23 Apr 82.

Dickerson, Richard E.; Drew, Horace R.; Conner, Benjamin N.; Wing, Richard M.; Fratini, Albert V.; Kopka, Mary L.: The anatomy of A-, B-, and Z-DNA: v216 p475-485 30 Apr 82.

Dickson, David (news and comment): A battle over Bell Labs. v216 p1393—1394 25 June 82. Slaughter to quit NSF for University of Maryland. v216 p1298 18 June 82. Diliberto, Emanuel J., Jr. See Daniels, Alejandro I.

Dimentman, Ch. See Rahat, M.

DiMichele, Leonard and Powers, Dennis A .: Physiological basis for swimming endurance differences between LDH-B genotypes of Fundulus heteroclitus. v216 p1014-1016 28 May 82.

Dingle, Hugh: review of Animal Migration, edited by D. J. Aidley. v216 p288-289 16 Apr 82

Apr 82.

Dockray, G. J. See Osborne, N. N.

Dodson, R. See Heber, D.

Donahue, T. M.; Hoffman, J. H.; Hodges, R.
R., Jr.; Watson, A. J.: Venus was wet: a
measurement of the ratio of deuterium to
hydrogen. v216 p630–633 7 May 82.

Douglass, David H. and Bocko, Mark: review

of Theory and Experiment in Gravitational Physics, by Clifford M. Will. v216 p979 28

Drake, Robert E. See Marshall, Larry G. Drappier, D. See Vermeersch, P. M. Drazen, Jeffrey M. See Weiss, J. Woodrow. Draw, Horace R. See Dickerson, Richard E. Dungan, Michael L.; Miller, Thomas E.; Thomson, Donald A.: Catastrophic decline of a top carnivore in the Gulf of California rocky intertidal zone. v216 p989-991 28 May

Dunkerley, Joy and Ramsay, William: Energy and the oil-importing developing countries v216 p590-595 7 May 82.

Durney, Carl H. See Hayes, Cecil E. Dwivedi, A. M. See Krimm, S.

#### F and F

Eberhard, William G.: review of Spider Communication, edited by Peter N. Witt and Jerome S. Rovner. v216 p876–877 21 May 82

Eby, R. E. See Gentry, Robert V. Eckert, Roger and Ewald, Douglas: Residual calcium ions depress activation of calciumdependent current. v216 p730-733 14 May

Edwards, James L.: review of Vertebrate Lo-comotion, edited by M. H. Day. v216 p510

30 Apr 82

Edwards, McIver W., Jr. See Matin, Leonard. Eisenberg, Robert S.: review of The Biophysical Approach to Excitable Systems, edited by William J. Adelman, Jr., and David E. Goldman. v216 p1102–1103 4 June 82. Elder, Glen H., Jr.: revisw of Middletown Fam-

ilies, by Theodore Caplow, Howard M. Bahr, Bruce A. Chadwick, Reuben Hill, and Mar-

garet Holmes Williamson. v216 p854–857 21 May 82. Eldred, Graig E.; Miller, Gregory V.; Stark, William S.; Feeney-Burns, Lynette: Lipofus-cin: resolution of discrepant fluorescence

data. v216 p757-759 14 May 82. Elias, Dana. See Shechter, Yoram. Elston, Steven F. A. See Blum, Kenneth. Eston, Steven F. A. See Shim, Remitter. Epstein, Stephen. See Shimada, Izumi. Estess, Pila. See Sims, John. Eule, Wolfgang. See Gerson, Donald F. Evans, J. A. See Battelle, B.-A. Evans, J. V.: The sun's influence on the

earth's atmosphere and interplanetary

space. v216 p467–474 30 Apr 82. Evans, Peter D. See Horvitz, H. Robert. Ewald, Douglas. See Eckert, Roger. Fabian, Robert G. See Tolley, George S. Farrington, John W. See Honjo, Susumu. Faust, Irving M. See Lyons, Michael J. Feeney-Burns, Lynette. See Eldred, Graig E. Fegley, Bruce, Jr. See Lewis, John S. Ferguson, Mark W. J.: Duplicate publication (letter). v216 p1274 18 June 82.

Ferre, Jean-Pierre. See Bueno, Lionel. Ferretti, Ginofabrizio. See De Pirro, Roberto. Finch, Caleb E.: review of Brain Neurotrans-mitters and Receptors in Aging and Age-Related Disorders, edited by S. J. Enna, T. Samorajski, and Bernard Beer. v216 p49—

50 2 Apr 82.

Fink, William L.: review of Advances in Cladistics, edited by V. A. Funk and D. R. Brooks. v216 p872–873 21 May 82. Finn, Arthur L. See Davis, C. William. Fischbein, A. See Rohl, A. N.

Fischer, Patricia. See Karpas, Abraham. Fischli, W. See Watson, S. J. Fisher, D. A. See Perlow, M. J.

Fisher, Michael S. and Kripke, Margaret L .: Suppressor T lymphocytes control the de-velopment of primary skin cancers in ultraviolet-irradiated mice. v216 p1133-1134 4 June 82.

Fiske, Richard S. and Shepherd, John B.: Deformation studies on Soufriere, St. Vincent, between 1977 and 1981, v216 p1125-

Fiske, Richard S. and Sigurdsson, Haraldur: Soufriere Volcano, St. Vincent: observations of its 1979 eruption from the ground, aircraft, and satellites. v216 p1105–1106 4 June 82

Flory, Paul J. See Baltimore, David. Forrest, Joseph. See Carlson, Paul R., Jr. Fowler, William A. and Shapero, Donald C. Scientific instrumentation (editorial). v216

Scientific instrumentation (editorial). v216 p687 14 May 82.
Francke, Uta. See Hershfield, Michael S. Frank, Joseph P. and Williams, Jerry R.: X-ray induction of persistent hypersensitivity to mutation. v216 p307–308 16 Apr 82.
Fratini, Albert V. See Dickerson, Richard E. Friedman, Robert M. See Preble, Olivia T. Fry, Jerres N. See Schramm, Pavid Fry, James N. See Schramm, David. Fuchs, Jannon. See Baudry, Michel. Fujiki, Hirota. See Hirakawa, Tadashi. Fuller, C. See Simpson, H. J.

Fuller, W. H., Jr.; Sokol, S.; Hunt, W. H.: Airborne lidar measurements of the Soufri-ere eruption of 17 April 1979. v216 p1113-1115 4 June 82.

Futuyma, Douglas J.: review of The Growth of Biological Thought, by Ernst Mayr. v216 p842-844 21 May 82.

Gagnon, Jean. See Williams, Alan F Gale, Noël H. and Stos-Gale, Zofia A.: Bronze Age copper sources in the Mediterranean: a new approach. v216 p11-19 2 Apr 82.

Ganapathy, R.: Evidence for a major meteorite impact on the earth 34 million years ago: implication for Eocene extinctions. v216 p885-886 21 May 82.

p895–866 21 May 82. Gans, Carl and Gorniak, Gerard C.: How does the toad flip its tongue? test of two hypothe-ses. v216 p1335–1337 18 June 82. Gardner, D. E. See Hu, P. C. Garrison, Barbara J. and Winograd, Nicholas:

Garrison, Barbara J. and Winograd, Nicholas: Ion beam spectroscopy of solids and sur-faces. v216 p805–812 21 May 82. Gause, Ingrid A. M. See Isaksson, Olle G. P. Gentry, Robert V.; Sworski, Thomas J.; McKown, Henry S.; Smith, David H.; Eby, R. E.; Christie, W. H.: Differential lead erelention in zircons: implications for nuclear waste containment. v216 p296–298 16 Apr 82. Gergely, John: review of The Structural Basis of Muscular Contraction, by John Squire.

v216 p1310-1311 18 June 82.

Germani, Mark S. See Sedlacek, William A. Gerritsen, Jeroen and Porter, Karen G.: The role of surface chemistry in filter feeding by zooplankton. v216 p1225–1227 11 June 82

Gershon, Samuel. See Stanley, Michael. Gerson, Donald F.; Kiefer, Hansruedi; Eufe, Wolfgang: Intracellular pH of mitogen-stimulated lymphocytes. v216 p1009–1010 28 May 82

Gieskes, Joris M. See Mangelsdorf, Paul C. Gijselings, G. See Vermeersch, P. M. Gilbert, Steven G. See Rice, Deborah C. Gillespie, John H.: review of *Dobzhansky's* 

Genetics of Natural Populations, edited by R. C. Lewontin, John A. Moore, William B. Provine, and Bruce Wallace, and *The Roving Naturalist*, edited by Bentley Glass. v216 p844–846 21 May 82.

Gillmor, C. Stewart: review of New Eye for the Navy, by David Kite Allison. v216 p852-853

21 May 82.

Gliot, E. See Vermeersch, P. M.
Giorgi, Franco: review of Primordial Germ
Cells in the Invertebrates, by Pieter D. Nieuwkoop and Lien A. Sutasurya. v216 p404 23 Apr 82. Glover, Joel C. and Kramer, Andrew P.: Serotonin analog selectively ablates identified neurons in the leech embryo. v216 p317– 319 16 Apr 82.

Glusker, Jenny P.: review of Structural Aspects of Recognition and Assembly in Biological Macromolecules, edited by Miriam

Balaban. v216 p290 16 Apr 82. Gogolin, Kathryn J.; Wray, Larry K.; Slaughter, Clive A.; Harris, Harry: A monoclonal anti-body that reacts with nonallelic enzyme

glycoproteins. v216 p59–61 2 Apr 82.
Goldfine, Ira D. See Purrello, Francesco.
Goldman, Allen. See Gupta, Chhanda.
Goldman-Rakic, Patricia S. and Schwartz, Michael L.: Interdigitation of contralateral and ipsilateral columnar projections to frontal association cortex in primates. v216 p755-

757 14 May 82. Goldstein, A. See Watson, S. J. Gombos, Andrew M. See Hsü, Kenneth J. Goodman, Major M.: review of Chromosome Constitution of Races of Maize, by Barbara McClintock, Takeo Angel Kato Y., and Almiro Blumenschein. v216 p871–872 21 May 82.

Gordon, E. R.; Rochman, J.; Arat, M.; Lieber, C. S.: Lack of correlation between hepatic mitochondiral membrane structure functions in ethanol-fed rats. v216 p1319-

1321 18 June 82.

Goren, H. Joseph. See Hanif, Khawar. Gorniak, Gerard C. See Gans, Carl. Gottesman, Max E. See Ward, Douglas F. Gottlieb, L. D.: Conservation and duplication of isozymes in plants. v216 p373-380 23 Apr 82

Gould, Stephen Jay: Darwinism and the expansion of evolutionary theory. v216 p380–387 23 Apr 82.

Grabiner, Judith V .: review of Social History of Nineteenth Century Mathematics, edited by Herbert Mehrtens, Henk Bos, and Ivo Schneider. v216 p168 9 Apr 82. Gradle, J. and Tedesco, E.: Compositinal

structure of the asteroid belt. v216 p1405-1407 25 June 82.

Gradie, Jonathan: Asteroid results (letter).

v216 p800 21 May 82. Graham, J. A. See Hu, P. C. Graham, John A.: review of The Olmec and Their Neighbors, edited by Elizabeth P. Benson. v216 p404-406 23 Apr 82

Gray, Paul E.: Support of graduate education (editorial). v216 p129 9 Apr 82. Griffith, Harry A. and Cooper, Robert S.: Space weapons and nuclear effects. v216 p1364 25 June 82.

Groffen, John; Heisterkamp, Nora; Grosveld, Frank; Van de Ven, Wim; Stephenson, J. R.: Isolation of human oncogene sequences (v-fes homolog) from a cosmid library. v216 p1136–1138 4 June 82.

Grosveld, Frank. See Groffen, John. Gruberg, Edward R. See Lettvin, Jerome Y.

Grunwaldt, Edgar. See Burgdoreer, Willy. Gruver, M. M. See Carbonetto, S. T. Gupta, Chhanda; Yaffe, Sumner J.; Shapiro, Bernard H.: Prenatal exposure to phenobarbital permanently decreases testosterone and causes reproductive dysfunction. v216 p640-642 7 May 82.

Gupta, Chhanda and Goldman, Allen: H-2 histocompatibility region: influence on the murine glucocorticoid receptor and its response. v216 p994-996 28 May 82

Gust, Devens. See Moore, Ana L Gutnick, Michael J. See Connors, Barry W.

Haas, Leonard W. See Hayward, Don. Hadden, Susan G.: review of *The Scientific Basis of Health and Safety Regulation*, edited by Robert W. Crandall and Lester B. Lave. v216 p508–509 30 Apr 82. Hadley, William M. See Dahl, Alan R. Hahn, Fletcher F. See Dahl, Alan R. Hall, Paula Quick: Seminar series honors

blacks in science and technology (AAAS). v216 p43-44 2 Apr 82. Hammond, D. E. *See* Simpson, H. J.

Hammond, Graeme L.; Lai, Yiu-Kay; Markert, Clement L.: The molecules that initiate cardiac hypertrophy are not species-specific. v216 p529-531 30 Apr 82. Hancock, Joseph G. See Schroth, Milton N. Hanff, Philip A. See Walfield, Alan M.

Hanif, Khawar; Lederis, Karl; Hollenberg, Morley D.; Goren, H. Joseph: Inability of oxytocin to activate pyruvate dehydrogenase in the Brattleboro rat. v216 p1010-1012 28

Hannon, Bruce and Brodrick, James R.: Steel

namion, Bruce and Brodrick, James H.: Steel recycling and energy conservation. v216 p485–491 30 Apr 82.
Harding, Joseph W. See Wright, John W. Hardy, Richard: MX basing modes (letter). v216 p1274 18 June 82.

Harris, Harry. See Gogolin, Kathryn J. Hartmann, William K.: review of The Surface of Mars, by Michael H. Carr. v216 p882–

883 21 May 82.
Hatch, Chris. See Lattman, Eaton.
Hatcher, Robert D., Jr.: Hydrocarbon resources of the eastern overthrust belt: a realistic evaluation. v216 p980-982 28 May

Haxton, W. C. See Cowan, G. A. Hayes, Cecil E.; Case, Thomas A.; Ailion, David C.; Morris, Alan H.; Blackburn, Celia W.; Durney, Carl H.; Johnson, Steven A.: Lung water quantitation by nuclear magnetic resonance imaging. v216 p1313-1315 18 June 82

Hayes, Stanley F. See Burgdoreer, Willy. Hayward, Don; Welch, Christopher S.; Haas, Leonard W.: York River destratification:

an estuary-subestuary interaction. v216 p1413—1414 25 June 82. Hazen, R. M. and Mariathasan, J. W. E.: Bismuth vanadate: a high-pressure, hightemperature crystallographic study of the ferroelastic-paraelastic transition. p991-993 28 May 82.

He, Q. See Hsü, Kenneth J. Heath, James E.: Cost of new journals (letter). v216 p684 14 May 82. Heber, D.; Dodson, R.; Swerdloff, R. S.; Chan-nabasavaiah, K.; Stewart, J. M.: Pituitary receptor site blockade by a gonadotropin releasing hormone antagonist in vivo: mechanism of action. v216 p420-421 23

Heffter, Jerome L. See Barr, Sumner. Heiken, Grant. See Sedlacek, William A Heilbron, J. L.: review of Einstein centennial works. v216 p846–849 21 May 82. Heisterkamp, Nora. See Groffen, John. Heller, Robert. See Shapiro, Harold T.

Hemmes, Richard B. See Lyons, Michael J. Henneman, Elwood. See Jolesz, Ferenc A. Hershfield, Michael S. and Francke, Uta: The human genes for S-adencsylhomocysteine hydrolase and adenosine deaminase are syntenic on chromosome 20. v216 p739-

742 14 May 82.

Hesse, K.-F. See Suess, E. Hickman, James C.: Science and religion (letter). v216 p242 16 Apr 82.

Highland, Joseph. See Silbergeld, Ellen K. Hildemann, W. H.: Science instruction and religion (letter). v216 p1048 4 June 82. Hinson, Riley E. See Siegel, Shepard.

Hirakawa, Tadashi; Kakunaga, Takeo; Fujiki, Hirota; Sugimura, Takashi: A new tumorpromoting agent, dihydroteleocidin B, markedly enhances chemically induced malig-nant cell transformation. v216 p527-529 30

Hirsch, Jules. See Lyons, Michael J. Hjellming, R. M. and Bignell, R. C.: Radio astronomy with the Very Large Array. v216 p1279–1285 18 June 82.

Hobika, Grant H. See Corasanti, James G. Hodges, R. R., Jr. See Donahue, T. M. Hoffman, J. H. See Donahue, T. M. Hoffmann, Robert S.: review of The Mammalian Radiations, by John F. Eisenberg. v216 p873-875 21 May 82.

Holden, Constance (news and comment): Bald eagles on the rise. v216 p968 28 May 82. Binary nerve gas production plans de-bated. v216 p495, 497–498 30 Apr 82. Endangered Species Act reauthorized. v216 p1390 25 June 82. Environmentalists now targeting Reagan. v216 p602 7 May 82. \$15-Million gift launches new global think tank. v216 p1298–1299 18 June 82. Peace academy gaining momentum. v216 p717 14 May 82. Revised animal bill under scrutiny, v216 p1084-1085 4 June 82. Senate approves binary weapons plan. v216 p1206 11 June 82. Society formed to study anomalies. v216 p1390–1391 25 June 82. anomalies. v216 p1390–1391 25 June 82. Statistics suffering under Reagan. v216 p833 21 May 82. Taub appeal set. v216 p1299 18 June 82. TV report affirms violence-aggression link. v216 p1299 18 June 82. "Unequivocal" evidence of Soviet toxin use. v216 p154–155 9 Apr 82. Holick, M. F. See MacLaughlin, J. A. Hollenberg, Morley D. See Hanif, Khawar. Hollister, Charles D.: Nuclear waste disposal (letter). v216 p567 7 May 82. Holloway, Ralph L. See de Lacoste-Utamsing, Christine.

Christine.

Honjo, Susumu; Spencer, Derek W.; Farrington, John W.: Deep advective transport of lithogenic particles in Panama Basin. v216 p516-518 30 Apr 82

Horvitz, H. Robert; Chalfie, Martin; Trent, Carol; Sulston, John E.; Evans, Peter D.: Serotonin and octopamine in the nematode Caenorhabditis elegans.. v216 p1012-1014

Caenorhabditis elegans.. V210 p1012-1019
28 May 82.
Howard, R. See Ridgway, S. H.
Howie, A.: review of Fifty Years of Electron
Diffraction, edited by P. Goodman. v216
p878-880 21 May 82.
Hoy, Ronald R.: review of Neurobiology of the
Leech, edited by Kenneth J. Muller, John G.
Nicholls, and Gunther S. Stent. v216 p877
21 May 82 21 May 82

Hsü, Kenneth J.; He, Q.; McKenzie, Judith A.; Weissert, Helmut; Perch-Nielsen, Kathar-Weissert, Helmut; Perch-Nielsen, Kathar-ina; Oberhänsli, Hedy; Kelts, Kerry; LaBrecque, John; Tauxe, Lisa; Krähenbühl, Urs; Percival, Stephen F., Jr.; Wright, Ramil; Karpoff, Anne Marie; Petersen, Nikolai; Tucker, Peter; Poore, Richard Z.; Gombos, Andrew M.; Pisciotto, Kenneth; Carman, Max F., Jr.; Schreiber, Edward: Mass mortality and its environmental and evolutionary consequences, v216 p249-256 16 Apr

Hu, P. C.; Cole, R. M.; Huang, Y. S.; Graham, J. A.; Gardner, D. E.; Collier, A. M.; Clyde, W. A., Jr.: Mycoplasma pneumoniae infections of the control in the attach. tion: role of a surface protein in the attachment organelle. v216 p313–315 16 Apr

Huang, M-T. See Lasker, J. M.
Huang, Y. S. See Hu, P. C.
Huettner, David A.: Economic values and embodied energy (technical comment). v216
p1141–1143 4 June 82.

Hulse, J. H.: Food science and nutrition: the gulf between rich and poor. v216 p1291– 1294 18 June 82. Hultgren, Ronald O.: Uranium enrichment (let-ter), v216 p1274 18 June 82. Hunt, W. H. See Fuller, W. H., Jr.

## I and J

lbarra, Bertha. See Cantú, José María. Imawaki, S. and Takano, K.: Low-frequency eddy kinetic energy spectrum in the deep western North Pacific. v216 p1407–1408 25 June 82

Ireland, Mark. See Welsh, Michael J. Isaksson, Olle G. P.; Jansson, John-Olov; Gause, Ingrid A. M.: Growth hormone stimulates longitudinal bone growth directly. v216 p1237-1239 11 June 82. Itakura, Keiichi. See Patel, Dirishaw J.

Janssens, Jan A. See Wright, H. E., Jr. Janssens, Jan A. See Wright, H. E., Jr. Jansson, John-Olov. See Isaksson, Olle G. P. Janzen, D. H. and Martin, P. S.. Pleistocene seed dispersal (letter), v216 p6 2 Apr 82. Jeffery, William R.: Calcium ionophore polar-

izes ooplasmic segregation in ascidian eggs. v216 p545–547 30 Apr 82. Jelinek, Arthur J.: The Tabun cave and Paleolithic man in the Levant, v216 p1369-1375

Jelinek, Warren R. See Schmid, Carl W. Jensen, James B.; Boland, Michael T.; Akood, Mustafa: Induction of crisis forms in cultured Plasmodium falciparum with human immune serum from Sudan. v216 p1230—

1233 11 June 82. Johnson, Gregory A.: review of *The Transition*to Statehood in the New World, edited by
Grant D. Jones and Robert R. Kautz. v216

p867–869.21 May 82.

Johnson, L. A. S.: review of Advances in Legume Systematics, edited by R. M. Polhill and P. H. Raven. v216 p1402–1403 25 June 82.

Johnson, Steven A. See Hayes, Cecil E. Jolesz, Ferenc A.; Chang-Tao, Xu; Ruenzel, Paul W.; Henneman, Elwood: Flexor reflex control of the external sphincter of the urethra in paraplegia. v216 p1243–1245 11

Jonas, Jiri: Nuclear magnetic resonance at high pressure. v216 p1179-1184 11 June 82.

Jones, M. Douglas, Jr.; Rosenberg, Adam A.; Simmons, Michael A.; Molteni, Richard A.; Koehler, Raymond C.; Traystman, Richard J.: Oxygen delivery to the brain before and after birth. v216 p324–325 16 Apr 82. Joy, Anna. See Moore, Ana L. Joyce, Robert M.: Science and religion (letter).

v216 p242 16 Apr 82.

Jura, M. and York, D. G.: Search for interstellar superheavy hydrogen. v216 p54-55 2

Kac, Mark. See Baltimore, David.
Kai, Shoichi. See Müller, Stefan C.
Kakunaga, Takeo. See Hirakawa, Tadashi.
Kamoun, P. G.; Campbell, D. B.; Ostro, S. J.;
Pettengill, G. H.; Shapiro, I. I.: Comet
Encke: radar detection of nucleus. v216
p293–295 16 Apr 82.
Karnas Abraham: Eischer, Patricia: Swirsky.

Karpas, Abraham; Fischer, Patricia; Swirsky, David: Human myeloma cell line carrying a Philadelphia chromosome. v216 p997–999

28 May 82. Karpoff, Anne Marie. See Hsü, Kenneth J.

Karpoff, Anne Marie. See Hsū, Kenneth J. Kato, Satoru. See Negishi, Koroku. Katze, Jon R.; Basile, Brenda; McCloskey, James A.: Queuine, a modified base incorporated posttranscriptionally into eukaryotic transfer RNA: wide distribution in nature. v216 p55–56 2 Apr 82. Kaufman, Lloyd. See Romani, Gian Luca. Kawashima, Yoshiaki; Okumura, Motonari; Takenaka, Hideo: Spherical crystallization: direct spherical agglomeration of salicylic-

Takenaka, Hideo: Spherical crystallization: direct spherical agglomeration of salicylicacid crystals during crystallization. v216 p1127–1128 4 June 82.

Kaye, Clifford A. See Lenk, Cecilia.

Kelts, Kerry. See Hsü, Kenneth J.

Kennedy, B. J. See Kiang, David T.

Kennedy, Donald: The government, secrecy, and University. v216

and university research (editorial). v216 p365 23 Apr 82. Kent, G. S. See McCormich, M. Patrick.

Kerr, Richard A. (research news): Caged argon: a clue to the birth of Titan. v216 p1210 11 June 82. Lightning on Saturn or ring discharges? v216 p1211 11 June 82. New evidence fuels Antarctic ice debate. v216 p973-974 28 May 82. New magnet speeds

mass spectrometers. v216 p165 9 Apr 82. Odd amino acids in a meteorite. v216 p972 28 May 82. Real-time identification of un-known mass spectra. v216 p164–165 9 Apr 82. Rings, rings, what makes the rings? v216 p1210-1211 11 June 82. Sample preparation by a one-armed robot. v216 p164 9 Apr 82. U.S. weather and the equa-torial connection. v216 p608–610 7 May 82. Volcanic hazard alert issued for California. v216 p1302-1303 18 June 82. The volcano behaves itself-sort of. v216 p286 16 Apr 82. Weight limit for mass spectroscopy raised. v216 p163, 166 9 Apr 82. What battered the satellites of Saturn? v216 p1211 11 June 82.

Kessler, Markus. See Baudry, Michel.
Kiang, David T.; King, Margaret; Zhang, Hui-Jian; Kennedy, B. J.; Wang, Nancy: Cyclic biological expression in mouse mammary tumors. v216 p68-70 2 Apr 82.

Kiefer, Hansruedi. See Gerson, Donald F. King, Margaret. See Kiang, David T. Kinnally, Kathleen Walsh and Tedeschi, Henry: Adenosine triphosphate synthesis coupled to K+ influx in mitochondria. v216

p742-744 14 May 82. Kirsch, Ilan R.; Morton, Cynthia C.; Nakahara, Kenneth; Leder, Philip: Human immunoglobulin heavy chain genes map to a region of translocations in malignant B lympho-

cytes. v216 p301–303 16 Apr 82.
Kislauskis, Edward. See Like, Arthur A.
Kislev, Mordechai E.: Stem rust of wheat 3300 years old found in Israel. v216 p993–994 28 May 82.

Klaw, Spencer: Columbia Journalism Review:
editorial policy (letter). v216 p464 30 Apr 82.
Klein, Abraham: review of Interacting Bose-Fermi Systems in Nuclei, edited by F. la-chello. v216 p46 2 Apr 82.

Kline, Jennie: Alcohol and pregnancy (letter). v216 p564 7 May 82. Klippel, John H. See Preble, Olivia T.

Knutson, V. P. See Teissie, J. Koehler, Raymond C. See Jones, M. Douglas,

Kolata, Gina (research news): New code is broken. v216 p971–972 28 May 82. New valiums and anti-valiums on the horizon. v216 p604-605 7 May 82. Perfect shuffles and their relation to math. v216 p505-506 30 Apr 82. Value of low-sodium diets questioned. v216 p38-39 2 Apr 82. (news and comment): Chess-playing computer seized by customs. v216 p1392 25 June 82. Inman resigns from CIA. v216 p603 7 May 82. New award to supplement Nobels. v216 p1391

25 June 82. Reagan signs order on classifi-cation. v216 p276–277 16 Apr 82. Konstantinidis, Antonis; Smulow, Jerome B.; Sonnenschein, Carlos: Tumorigenesis at a predetermined oral site after one intraperitoneal injection of N-nitroso-N-methylurea. v216 p1235-1237 11 June 82.

Kopka, Mary L. See Dickerson, Richard E. Kornberg, Arthur. See Baltimore, David. Kramer, Andrew P. See Glover, Joel C. Kramer, Donald L. See Nakatsuru, Ken. Krank, Marvin D. See Siegel, Shepard.
Krimm, S. and Dwivedi, A. M.: Infrared spectrum of the purple membrane: clue to a

proton conduction mechanism? v216 p407-408 23 Apr 82.

Kripke, Margaret L. See Fisher, Michael S. Krnjević, K.: review of Glutamate, edited by P J. Roberts, J. Storm-Mathisen, and G. A. R.

J. Hoberts, J. Storm-Mathisen, and G. A. H. Johnston. v216 p510–511 30 Apr 82.

Kron, Richard G.: The most distant known galaxies. v216 p265–269 16 Apr 82.

Krueger, Arthur F.: Geostationary satellite observations of the April 1979 Soufriere eruptions. v216 p1108–1109 4 June 82.

Krähenbühl, Urs. See Hsü, Kenneth J.

Kranenbuni, Urs. See Hsu, Kenneth J. Ku, T. L. See Simpson, H. J. Kuenen, L. P. S. See Baker, Thomas C. Kunis, David M. See Connors, Barry W. Kunkel, Louis M. See Clough, David W. Kusch, Polykarp. See Baltimore, David. Kuwabara, James S.: Micronutrients and kelp cultures: evidence for cobalt and manga nese deficiency in southern California deep seawater, v216 p1219-1221 11 June 82.

LaBrecque, John. See Hsü, Kenneth J. Labrie, Fernand; Veilleux, Raymonde; Le-fevre, Gerard; Coy, David H.; Sueiras-Diaz, Javier; Schally, Andrew V.: Corticotropin-releasing factor stimulates accumulation of adenosine 3', 5'-monophosphate in rat pitu-itary corticotrophs. v216 p1007-1008 28

itary corticotrophs. v216 p1007–1008 28 May 82.

Lai, Yiu-Kay. See Hammond, Graeme L.

Lake, James A. See Clark, Michael W.

Lam, Louis F-H. See Shapiro, Burton L.

Lambert, J. D. H. and Arnason, J. T.: Ramón and Maya ruins: an ecological, not an economic, relation. v216 p298–299 16 Apr 82.

Lancaster, Jack R., Jr.: New biological paramagnetic center: octahedrally coordinated nickel(III) in the methanogenic bacteria. v216 p1324–1325 18 June 82.

Land, Edward J. See Moore, Ana L.

Lane, M. D. See Teissie, J.

Langer, A. M. See Rohl, A. N.

Lappin, Joseph S.: International scientific exchange: additional views (letter). v216 p124

change: additional views (letter). v216 p124 9 Apr 82.

SAPI OC.

LARUe, T.: review of Genetic Engineering of Symbiotic Nitrogen Fixation and Conservation of Fixad Nitrogen, edited by J. M. Lyons, R. C. Valentine, D. A. Phillips, D. W. Rains, and R. C. Huffaker. v216 p615—616 7 May 82.

Lasker, J. M.; Huang, M-T.; Conney, A. H.: In vivo activation of zoxazolamine metabolism by flavone. v216 p1419-1421 25 June 82.

Latorre, Ramon. See Simon, Sidney A. Lattrnan, Eaton; Burlingame, Rufus; Hatch, Chris; Moudrianakis, Evangelos N.: Crystal-lization of the tetramer of histones H3 and H4. v216 p1016-1018 28 May 82.

Lauro, Renato. See De Pirro, Roberto. Lautenberger, James A. See Rushlow, Keith

Lauterbur, Paul C. See Brownell, Gordon L. Leder, Philip. See Kirsch, Ilan R. Lederis, Karl. See Hanif, Khawar. Lefevre, Gerard. See Labrie, Fernand.

LeGall, J. See Wood, J. M. Lehman, John T. and Scavia, Donald: Microscale patchiness of nutrients in plankton communities, v216 p729-730 14 May 82.

Lenk, Cecilia; Strother, Paul K.; Kaye, Clifford A.; Barghoorn, Elso S.: Precambrian age of the Boston Basin: new evidence from micro-fossils. v216 p619–620 7 May 82. Leonard, Kevin. See Clark, Michael W. Leopold, A. C.: Effective funding (letter). v216

p244 16 Apr 82. See also Chandra, S. Lerner, P. See Sternberg, D. E. Lesk, Arthur M. and Hardman, Karl D.: Com-puter-generated schematic diagrams of pro-tein structures. v216 p539–540 30 Apr

ettvin, Jerome Y.; Gruberg, Edward R.; Rose, Robert M.; Plotkin, George: Dolphins and the bends (technical comment). v216 p650-651 7 May 82. Levere, Trevor H.: review of Jacob Berzelius,

by Evan M. Melhado. v216 p1311-1312 18

Levinson, John Z. See Stork, David G. Levinson, John Z. See Stork, David G.
Lewin, Roger (research news): Adaptation
can be a problem for evolutionists. v216
p1212-1213 11 June 82. Big problems
faced in RNA processing. v216 p12081209 11 June 82. Biology is not postage
stamp collecting. v216 p718-720 14 May
82. Gene family controls a snail's egg laying. v216 p720-721 14 May 92. How did
humans evolve big brains. v216 p840-841
21 May 82. Molecules come to Darwin's aid.
v216 p1091-1092 4 June 82. Nairobi labov216 p1091-1092 4 June 82. Nairobi laboratory fights more than disease. v216 p500– 503 30 Apr 82. Neuroscientists look for theories. v216 p507 30 Apr 82. Portraits of a parasite. v216 p504 30 Apr 82. (news and comment): Tide of creationism stemmed for the nonce. v216 p36 2 Apr 82. Trial set for Louisiana's creationist law. v216 p499 30

Lewis, John S. See Nozette, Stewart. Lewis, John S. and Fegley, Bruce, Jr.: Venus: halide cloud condensation and volatile element inventories. v216 p1223-1225 11

Lewis, Robert A. See Weiss, J. Woodrow. Liberman, M. C.: Single-neuron labeling in the cat auditory nerve. v216 p1239–1241 11 June 82.

Lichter, Alan. See Tamarkin, Lawrence. Lieber, C. S. See Gordon, E. R. Like, Arthur A.; Kislauskis, Edward; Williams, R. Michael; Rossini, Aldo A.: Neonatal thymectomy prevents spontaneous diabetes mellitus in the BB/W rat. v216 p644-646 7 May 82.

Lippman, Marc. See Tamarkin, Lawrence. Lockard, Joan S.: review of Gorilla Behavior, by Terry L. Maple and Michael P. Hoff, and

by Terry L. Maple and Michael P. Hoff, and The Natural History of the Gorilla, by A. F. Dixson. v216 p171–172 9 Apr 82.
Lockwood, Karl L.: The missile debate (letter). v216 p932 28 May 82.
Lovejoy, S.: Area-perimeter relation for rain and cloud areas. v216 p185–187 9 Apr 82.
Lovett, Michael A. See Walfield, Alan M. Lowrance, William W.: Watching the watchers (letter). v216 p1172 11 June 82.
Lu, Shao-Ming. See Willott, James F.
Lubell, Michael S.: Isabelle: request for funds (letter). v216 p798 21 May 82.

(letter). v216 p798 21 May 82. Lubin, Yael D. and Robinson, Michael H.:

Lubin, Yael D. and Hobinson, Michael H.: Dispersal by swarming in a social spider. v216 p319–321 16 Apr 82. Ludlam, T.: review of *Techniques and Con-*cepts of High-Energy Physics, edited by Thomas Ferbel. v216 p1216 11 June 82. Luk, Gordon D.; Civin, Curt I.; Weissman, Robert M.; Baylin, Stephen B.: Ornithine describerations are partial in registeration but

decarboxylase: essential in proliferation but

decarboxylase: essential in proliferation but not differentiation of human promyelocytic leukemia cells. v216 p75–77 2 Apr 82. Lynch, Gary. See Baudry, Michel. Lyons, Michael J.; Faust, Irving M.; Hemmes, Richard B.; Buskirk, Daniel R.; Hirsch, Jules; Zabriskie, John B.: A virally induced abodit surdeceme in mice. viral virally 256. obesity syndrome in mice. v216 p82-85 2 Apr 82.

MacArthur, Rodger. See Matin, Leonard.

Macaulay, Stewart: review of The Criminal
Justice System, edited by Vladimir J. Konečni and Ebbe B. Ebbesen, and The Psy-chology of the Courtroom, edited by Norbert L. Kerr and Robert M. Bray. v216 p866-867 21 May 82.

MacIntosh, Frank C .: review of Chemical Neurotransmission, edited by Lennart Stjärne, Per Hedqvist, Hugo Lagercrantz, and Ake Wennmalm. v216 p877-878 21

Mackay, R. Stuart: Dolphins and the bends (technical comment). v216 p650 7 May 82. MacLaughlin, J. A.; Anderson, R. R.; Holick, M. F.: Spectral character of sunlight modulates photosynthesis of previtamin D<sub>3</sub> and its photoisomers in human skin. v216 p1001–1003 28 May 82. Maisel, Harry. See Welsh, Michael J. Makhlouf, G. M. See Bitar, K. N.

Malinow, G. M. See Bitar, N. N. Malinow, M. René; Bardana, Emil J., Jr.; Pirofsky, Bernard; Craig, Shirley; McLaughlin, Phyllis: Systemic lupus erythematosus-like syndrome in monkeys fed affalfa sprouts: role of a nonprotein amino acid. v216 p415-417 23 Apr 82.

Mangelsdorf, Paul C., Jr.; Sayles, Frederick L.; Von Herzen, Richard P.; Gieskes, Joris M.; McDuff, Russell E.; Anderson, Roger N.: Nuclear waste disposal (letter). v216 p564,

567 7 May 82.

Marciano, William J.: review of The Nature of Matter, edited by J. H. Mulvey. v216 p881

21 May 82.

Mariani, Andrew P.: Biplexiform cells: ganglion cells of the primate retina that contact photoreceptors. v216 p1134–1136 4 June

Mariathasan, J. W. E. See Hazen, R. M. Maris, Cynthia R. P. and Bender, Michael L.: Upwelling of hydrothermal solutions through ridge flank sediments shown by pore water profiles. v216 p623-626 7 May 82. Markert, Clement L. See Hammond, Graeme

L. Markus, Gabor. See Corasanti, James G. Maron, Ruth. See Shechter, Yoram. Marquardt, Hans. See Twardzik, Daniel R. Marshall, Eliot (news and comment): Block ends checks on USDA peer panels. v216 p1085 4 June 82. The first lasers. v216 p394 23 Apr 82. Gambling on interferon. v216 p1078–1079 4 June 82. Gould advances inventor's claim on the laser. v216 vances inventor's claim on the laser. v216 p392-395 23 Apr 82. Medical data bank: a security risk? v216 p831 21 May 82. More on yellow rain. v216 p967 28 May 82. NAS seeks news about jailed Iraqi scientists. v216 p391 23 Apr 82. NRC gains a third Reagan appointee. v216 p1085 4 June 82. NRC must weigh psychic costs. v216 p1203-1204 11 June 82. NRC reports on p1203–1204 11 June 82. NRC reports on Ginna nuclear plant accident. v216 p498-499 30 Apr 82. The politics of lead. v216 p496-30 Apr 82. Security checks on USDA peer reviewers. v216 p600 7 May 82. The Senate's plan for nuclear waste. v216 p709–710 14 May 82. Union Carbide quits Oak Ridge after 40 years. v216 p830–831 21 May 82. U.S. votes against Law of the Sea treaty. v216 p831 21 May 82. USDA retreats on gypsy moth front. v216 p716 14 May 82. USDA official defends loyalty checks. v216 p1391 25 June 82. Washingchecks. v216 p1391 25 June 82. Washington State vetoes Northern Tier pipeline. v216 p391 23 Apr 82. See also Norman, Colin

Marshall, Larry G.; Butler, Robert F.; Drake, Robert E.; Curtis, Garniss H.: Geochronology of type Uquian (late Cenozoic) land mammal age, Argentina. v216 p986-989 28 May 82.

Martin, M. See Sebastien, P. Martin, P. S. See Janzen, D. H. Martin, Paul and Papayannopoulou, Thalia: HEL cells: a new human erythroleukemia cell line with spontaneous and induced globin expression. v216 p1233-1235 11 June 82

Marx, Jean L. (research news): Agricultural applications of genetic engineering. v216 p1306 18 June 82. Cancer cell genes linked to viral *onc* genes. v216 p724 7 May 82. Cloning the genes of the MHC. v216 p400-402 23 Apr 82. Interface between molecular biology. biology and plant breeding. V216 p1306– 1307 18 June 82. Is RNA copied into DNA by mammalian cells? V216 p969–970 28 May 82. Monoclonal antibodies in cancer. v216 p283-285 16 Apr 82. Regulation of yenes coding for soybean proteins. v216 p1307 18 June 82. Ti plasmids as gene carriers. v216 p1305 18 June 82. Maslach, George J.: Berkeley audit (letter). v216 p798 21 May 82.

Mass, Clifford. See Robock, Alan. Mathieu, G. See Simpson, H. J.

Matin, Leonard; Picoult, Evan; Stevens, John K.; Edwards, McIver W., Jr.; Young, David; MacArthur, Rodger: Oculoparalytic illusion: visual-field dependent spatial mislocalizations by humans partially paralyzed with curare, v216 p198–2019 Apr 82.

Maugh, Thomas H., II (research news): Accel erating the synthesis of DNA. v216 p398 23 Apr 82. Conductive polymers set for a breakthrough. v216 p399 23 Apr 82. Exploring plant resistance to insects. v216 p722– 723 14 May 82. New angiogenesis inhibitor identified. v216 p1304 18 June 82. New applications, accessories for HPLC. v216 p159-161 9 Apr 82. A new approach to nonnutritive sweeteners, v216 p398-399 23 Apr 82. New drugs for Parkinson's, cancer. v216 p399 23 Apr 82. New link between ozone and cancer. v216 p396-397 23 Apr 82. A new route to opium derivatives. v216 p398 23 Apr 82. A separation technique with potential. v216 p1398—1399 25 June 82. Sleep-promoting factor isolated. v216 p1400 25 June 82. Solar with a grain of salt. v216 p1213—1214 11 June 82. "Time-of-licht" cultural research v216 p1213—1214 p1213—1214 p1213—1214 p1214 hight" optical spectroscopy, v216 p165 9
Apr 82. TLC: the overlooked alternative, v216 p161–163 9 Apr 82. (news and comment): Monsanto awards \$4 million grant. v216 p277 16 Apr 82.

Mauk, Michael D.; Warren, John T.; Thompson, Richard F.: Selective, naloxone-reversible morphine depression of learned behav-

ioral and hippocampal responses. v216 p434–436 23 Apr 82. Mayer, David J. See Watkins, Linda R. Mayfield, Denise. See Dalterio, Susan.
McClellan, Roger O. See Dahl, Alan R.
McCloskey, James A. See Katze, Jon R.
McCormich, M. Patrick; Kent, G. S.; Yue, G.
K.; Cunnold, D. M.: Stratospheric aerosol
effects from Soufrie by the SAGE satellite system. v216 p1115-

1118 4 June 82. McCully, Jane. See Siegel, Shepard. McDuff, Russell E. See Mangelsdorf, Paul C.,

McFadden, E. Regis, Jr. See Weiss, J. Wood-

McGeer, Patrick L. See Brownell, Gordon L. McGill, Robert. See Cleveland, William S. McIntosh, Thomas J. See Simon, Sidney

McKenzie, Judith A. See Hsü, Kenneth J. McKown, Henry S. See Gentry, Robert V. McLaughlin, Phyllis. See Malinow, M. René. Meldrum, B. S. See Croucher, M. J.

Mena, E. Edward and Cotman, Carl W.: Synaptic cleft glycoproteins contain homologous amino acid sequences. v216 p422-424 23 Apr 82.

424 23 Apr 64 Michel, Helen V. See Alvarez, Walter.
Miller, Gregory V. See Eldred, Graig E.
Miller, Thomas E. See Dungan, Michael L.
Molotch, Harvey L.: review of Love Canal, by
Adeline Gordon Levine. v216 p1401–1402
25 June 82 25 June 82.

Molteni, Richard A. See Jones, M. Douglas,

Jr.
Molyneux, Russell J. and James, Lynn F.:
Loco intoxication: indolizidine alkaloids of
spotted locoweed (*Astragalus lentiginosus*).
v216 p190–191 9 Apr 82.
Moncure, G. See Rohl, A. N.
Monroe, Yvonne L. See Pedersen, Cort A.
Moore, Ana L.; Joy, Anna; Tom, Roderick;
Gust, Devens; Moore, Thomas A.; Bensasson, René V.; Land, Edward J.: Photoprotection by carotenoids during obotosynthetection by carotenoids during photosynthesis: motional dependence of intramolecular energy transfer. v216 p982–984 28 May 82. Moore, Thomas A. See Moore, Ana L. Moran, David T. See Zill, Sasha N.

Moreale, Stephen J.; Ruiz, Georgita J.; Spo-tila, James R.; Standora, Edward A.: Temperature-dependent sex determination: current practices threaten conservation of sea turtles. v216 p1245-1247 11 June 82. Morgan, K. R. and Bartholomew, G. A.: Ho-

meothermic response to reduced ambient temperature in a scarab beetle. v216 p1409-1410 25 June 82.

Morris, Alan H. See Hayes, Cecil E. Morrison, David: review of Telescopes for the 1980s, edited by G. Burbidge and A. Hewitt. v216 p881–882 21 May 82.

V216 p861-862 21 May 02.
Morrison, G. H. See Chandra, S.
Morton, Cynthia C. See Kirsch, Ilan R.
Morton, Herbert C.: review of Books, by Lewis
A. Coser, Charles Kadushin, and Walter W.
Powell, v216 p862-863 21 May 82. Moskowitz, Nathan; Schook, William; Puszkin,

Saul: Interaction of brain synaptic vesicles induced by endogenous Ca<sup>2+</sup>-dependent phospholipase A<sub>2</sub>. v216 p305-307 16 Apr

Moudrianakis, Evangelos N. See Lattman, Ea-

Moura, Isabel. See Wood, J. M.

Moura, Isabei. See Wood, J. M.
Moyer, Albert E.: review of Science in America, edited by Nathan Reingold and Ida H.
Reingold. v216 p850–851 21 May 82.
Müller, P. J. See Suess, E.
Müller, Stefan C.; Kai, Shoichi; Ross, John:

Curiosities in periodic precipitation patterns. v216 p635–637 7 May 82.

Murray, D. G. See Romick, G. J. Murty, C. V. Ramana and Adiga, P. Radha-kantha: Pregnancy suppression by active immunization against gestation-specific riboflavin carrier protein. v216 p191-193 9

Mynatt, F. R.: Nuclear reactor safety research since Three Mile Island. v216 p131–135 9 Apr 82.

#### N

Nakahara, Kenneth. See Kirsch, Ilan R. Nakatsuru, Ken and Kramer, Donald L.: Is sperm cheap? limited male fertility and female choice in the lemon tetra (Pisces, Cha-

racidae). v216 p753–755 14 May 82. Nash, William G. See O'Brien, Stephen J. Nathans, Daniel. See Baltimore, David. Needleman, Herbert L. See Rabinowitz, Michael B.

Neef, G. See Braestrup, C.

Negishi, Koroku; Teranishi, Tsunenobu; Kato, Satoru: New dopaminergic and indoleamine-accumulating cells in the growth zone of goldfish retinas after neurotexic destruction. v216 p747–749 14 May 82. Nelkin, Dorothy: Intellectual property: the con-

trol of scientific information. v216 p704-708

14 May 82.

Nelson, D. Erle. See Chisholm, Brian S.
Nevissi, Ahmad E. See Wissmar, Robert C.
Nicholaides, John J. See Sanchez, Pedro A.
Nielsen, M. See Braestrup, C.
Nilaver, G. See Watson, S. J.

Niles, George A. See Adkisson, Perry L. Nirenberg, Marshall W. See Baltimore, David. Norman, Colin (news and comment): Audit may cost UC millions. v216 p279 16 Apr 82. Chip makers turn to academe with offer of Chip makers turn to academe with offer of research support. v216 p601 7 May 82. Gas centrifuge plant in trouble in Congress. v216 p1206–1207 11 June 82. Livermore wins laser battle. v216 p830 21 May 82. Scrap NSF, slash NIH, conservatives urge. v216 p499 30 Apr 82. Shaky firms make poor sponsors. v216 p1080 4 June 82. Southern listed acceptable value value 82. Southern listed acceptable value value 1307.19 June Biotech goes bankrupt. v216 p1297 18 June Biotech goes cankrupt. V216 p1297 18 June 82. Soviet radwaste spill confirmed. V216 p274 16 Apr 82. Yale refuses to accept NSF grant. v216 p37 2 Apr 82.

and Marshall, Eliot (news and comment): Boom and bust in biotechnology. v216 p1076–1082 4 June 82.

Nozette, Stewart and Lewis, John S.: Venus: chemical weathering of igneous rocks and buffering of atmospheric composition. v216 p181–183 9 Apr 82. Nutmagul, Winai. See Cronn, Dagmar R.

#### O and P

Oberhänsli, Hedy. See Hsü, Kenneth J. O'Brien, Stephen J. and Nash, William G.: Genetic mapping in mammals: chromo-some map of domestic cat. v216 p257–265 16 Apr 82

Okumura, Motonari. See Kawashima, Yo-

Oliver, Jack: Probing the structure of the deep continental crust. v216 p689-695 14 May

Olsen, C. R. See Simpson, H. J. Osborne, N. N.; Cuello, A. C.; Dockray, G. J.: Substance P and cholecystokinin-like peptides in Helix neuronsand cholecystokinin and serotonin in a giant neuron, v216 p409-411 23 Apr 82.

Ostro, S. J. See Kamoun, P. G. Otte, M. See Vermeersch, P. M.

Page, Terry L.: Transplantation of the cockroach circadian pacemaker. v216 p73-75 2 Apr 82

Aproc.
Papas, Takis S. See Rushlow, Keith E.
Papasyannopoulou, Thalia. See Martin, Paul.
Pardi, Arthur. See Patel, Dinshaw J.
Patel, Dinshaw J.; Pardi, Arthur; Itakura, Keii-

chi: DNA conformation, dynamics, and interactions in solution. v216 p581-590 7 May

Patton, James L.: review of Evolution Today. edited by Geoffrey G. E. Scudder and James L. Reveal. v216 p287-288 16 Apr

Paulissen, E. See Vermeersch, P. M. Pedersen, Cort A.; Ascher, John A.; Monroe, Yvonne L.; Prange, Arthur J., Jr.: Oxytocin induces maternal behavior in virgin female

rats. v216 p648–650 7 May 82.
Penzias, Arno A. See Baltimore, David.
Perbal, Bernard. See Rushlow, Keith E.
Perch-Nielsen, Katharina. See Hsü, Kenneth

Percival, Stephen F., Jr. See Hsü, Kenneth J. Perera, Frederica and Petito, Catherine: Formaldehyde: a question of cancer policy? v216 p1285–1291 18 June 82. Perlow, M. J. Reppert, S. M.; Artman, H. A.; Fisher, D. A.; Seif, S. M.; Robinson, A. G.:

Oxytocin, vasopressin, and estrogen-stimulated neurophysin: daily patterns of concentration in cerebrospinal fluid. v216 p1416-

1418 25 June 82. Petersen, E. N. See Braestrup, C. Petersen, Nikolai. See Hsü, Kenneth J. Peterson, Christopher: review of Psychological Reactance, by Sharon S. Brehm and Jack W. Brehm. v216 p615 7 May 82.

Petito, Catherine. See Perera, Frederica. Pettengill, G. H. See Kamoun, P. G. Picoult, Evan. See Matin, Leonard. Pietruszko, Regina. See Vallari, Robert C. Pirofsky, Bernard. See Malinow, M. René.

Pisciotto, Kenneth. See Hsü, Kenneth J. Plaitakis, Andreas; Berl, Soll; Yahr, Melvin D.: Abnormal glutamate metabolism in an adult-onset degenerative neurological dis-order. v216 p193-196 9 Apr 82. Plotkin, George. See Lettvin, Jerome Y. Poore, Richard Z. See Hsü, Kenneth J. Porter, Karen G. See Gerritsen, Jeroen.

Powers, Dennis A. See DiMichele, Leonard. Prance, Ghillean T.: review of The Biological Aspects of Rare Plant Conservation, edited by Hugh Synge. v216 p977-978 28 May 82. Prange, Arthur J., Jr. See Pedersen, Cort A. Pratt, Thane K.: Pleistocene seed dispersal

(letter). v216 p6 2 Apr 82.
Preble, Olivia T.; Black, Roberta J.; Friedman, Robert M.; Klippel, John H.; Vilcek, Jan: Systemic lupus erythematosus: presence in human serum of an unusual acid-labile leukocyte interferon. v216 p429-431 23 Apr

Press, Frank: The fate of school science (editorial). v216 p1055 4 June 82. Price, Donald L. See Struble, Robert G

Price, Donald L. See Struble, Robert G.
Prusiner, Stanley B.: Novel proteinaceous infectious particles cause scrapie. v216
p136–144 9 Apr 82.
Puri, Prem S. See Bayer, Shirley A.
Purrello, Francesco; Vigneri, Riccardo; Clawson, Gary A.; Goldfine, Ira D.: Insulin stimulation of nucleoside triphosphatase activity in isolated nuclear envelopes. v216 p1005-1007 28 May 82.

Puszkin, Saul. See Moskowitz, Nathan. Putney, James W., Jr.: review of Calcium and cAMP as Synarchic Messengers, by How-ard Rasmussen. v216 p1403—1404 25 June

Rabbitts, Terence H. See Sims, John. Rabinowitz, Michael B. and Needleman, Her-bert L.: Temporal trends in the lead concentrations of umbilical cord blood. v216 p1429–1431 25 June 82. Rahat, M. and Dimentman, Ch.: Cultivation of

bacteria-free Hydra viridis: missing budding factor in nonsymbiotic hydra. v216 p67-68 2 Apr 82

Ramsay, William. See Dunkerley, Joy. Ranson, Bruce R. See Connors, Barry W. Ratchford, J. Thomas: Role of professional societies in development (editorial). v216

p803 21 May 82.
Rathjens, George: Soviet nuclear capabilities (letter). v216 p462 30 Apr 82.
Reddy, E. Premkumar. See Rushlow, Keith E.

Reed, Lester W. See Avnimelech, Yoram. Reis, Donald J. See Wiley, Ronald G. Reppert, S. M. See Perlow, M. J.

Reynolds, Fred H., Jr. See Twardzik, Daniel

Rice, Deborah C. and Gilbert, Steven G.: Early chronic low-level methylmercury poisoning in monkeys impairs spatial vision. v216 p759-761 14 May 82.

Richards, Robert J.: review of *The Letters of Erasmus Darwin*, edited by Desmond King-Hele. v216 p1101–1102 4 June 82.

Ridgway, S. H. and Howard, R.: Dolphins and the bends (technical comment). v216 p651 7 May 82

Ringer, Robert K. See Tucker, H. Allen. Robertson, Frederick N. See Winograd, Isaac

Robinson, A. G. See Perlow, M. J. Robinson, Arthur L. (research news): CERN resets particle hunt to October. v216-p836-838 21 May 82. LEP detector competition opens at CERN. v216 p1088–1090 4 June 82. Stanford pulls off a novel accelerator. v216 p1395-1397 25 June 82. (news and comment): Accident stalls test at CERN. v216 p273 16 Apr 82. China switches from protons to electrons. v216 p1206 11 June 82

Robinson, Michael H. See Lubin, Yael D. Robock, Alan and Mass, Clifford: The Mount St. Helens volcanic eruption of 18 May 1980: large short-term surface temperature effects. v216 p628-630 7 May 82.

Rochman, J. See Gordon, E. R. Roeder, Martin: The missile debate (letter). v216 p932 28 May 82.

Rogowski, Robert S. See Schryer, David R. Rohl, A. N.; Langer, A. M.; Moncure, G.; Selikoff, I. J.; Fischbein, A.: Endemic pleural disease associated with exposure to mixed fibrous dust in Turkey. v216 p518-520 30 Apr 82.

Romani, Gian Luca; Williamson, Samuel J.; Kaufman, Lloyd: Tonotopic organization of the human auditory cortex. v216 p1339— 1340 18 June 82.

Romick, G. J.; Murcray, D. G.; Williams, W. J.: Stratospheric nitrogen dioxide in the vicini of Soufriere, St. Vincent. v216 p1123-1124 4 June 82.

Root, Nina J.: Journal prices (letter). v216

p1048 4 June 82. Rose, Kenneth D.: Skeleton of *Diacodexis* oldest known artiodactyl. v216 p621-623 7 May 82.

Rose, Robert M. See Lettvin, Jerome Y Rosen, S. Peter: review of Neutrino Physics and Astrophysics, edited by Ettore Fiorini. v216 p1217 11 June 82. Rosenberg, Adam A. See Jones, M. Douglas,

Rosenkranz, Herbert S.: Diesel emissions and

health (letter). v216 p360, 362 23 Apr 82. Ross, John. See Müller, Stefan C. Rossini, Aldo A. See Like, Arthur A. Rossiter, Margaret W.: review of Saving the Prairies, by Ronald C. Tobey. v216 p168– 169 0. Apr 82 Rowley, Janet D.: Identification of the constant chromosome regions involved in human hematologic malignant disease. v216 p749–751 14 May 82.

Royce, Anya Peterson: review of Ethnic Change, edited by Charles F. Keyes. v216 p48–49 2 Apr 82.

p48–49 2 Apr 82.
Ruddiman, William F.: review of Marine Geology, by James P. Kennett, and The Sea-Floor, by E. Seibold and W. H. Berger. v216 p883–884 21 May 82.
Ruenzel, Paul W. See Jolesz, Ferenc A. Ruiz, Georgita J. See Moreale, Stephen J. Rushlow, Keith E.; Lautenberger, James A.; Papas, Takis S.; Baluda, Marcel A.; Perbal, Bermard, Chirikipan, Lack G. Beddy, F. Bernard; Chirikjian, Jack G.; Reddy, E. Premkumar: Nucleotide sequence of the transforming gene of avian myeloblastosis virus. v216 p1421–1423 25 June 82.
Rust, David M.: Solar flares, proton showers, and the space shuttle. v216 p939–946 28

May 82.

Ruttan, Vernon W.: Changing role of public and private sectors in agricultural research. v216 p23-29 2 Apr 82.

#### S

Saavedra, J. M. See Chevillard, C. Sanchez, Pedro A.; Bandy, Dale E.; Villa-chica, J. Hugo; Nicholaides, John J.: Ama-zon Basin soils: management for continuous crop production. v216 p821-827 21

Sanderson, Warren C.: review of A Treatise on the Family, by Gary S. Becker. v216 p976–977 28 May 82.

Sands, Stephen F. and Wright, Anthony A.: Monkey and human pictorial memory scanning. v216 p1333–1334 18 June 82. Sandy, John: On-line databases vital for sci

entific research (editorial). v216 p1367 25 June 82.

Santos, M. H. See Wood, J. M.

Sar, Madhabananda. See Blum, Kenneth. Sayles, Frederick L. See Mangelsdorf, Paul

Scandellari, M. See Wood, J. M. Scavia, Donald. See Lehman, John T. Schally, Andrew V. See Labrie, Fernand. Schaper, Daniel. See Athenstaedt, Herbert Schmid, Carl W. and Jelinek, Warren R.: The Alu family of dispersed repetitive sequences. v216 p1065–1070 4 June 82.

Schmidt, Maarten: Quasar boundary (letter). v216 p6 2 Apr 82. Schmiechen, R. See Braestrup, C

Schook, William. See Moskowitz, Nathan. Schramm, David and Fry, James N.: review of Neutrino 81, edited by R. J. Cence, E. Ma, and A. Roberts. v216 p617–618 7 May

Schreiber, Edward. See Hsü, Kenneth J Schroth, Milton N. and Hancock, Joseph G.: Disease-suppressive soil and root-colonizing bacteria. v216 p1376–1381 25 June 82.

Schryer, David R.; Rogowski, Robert S.; Cofer, Wesley R., III: Soot-catalyzed reac-

tions (letter). v216 p1174 11 June 82 Schuepp, P. H. See Desjardins, R. L. Schumann, Herbert and Zuckerman, Schumann, Herbert and Zuckerman, J. J.:
Omitted data (letter). v216 p800 21 May 82.
Schwaber, Jerrold: Hybridoma technology (letter). v216 p798 21 May 82.
Schwarcz, Henry P. See Chisholm, Brian S.
Schwartz, Michael L. See Goldman-Rakic,

Patricia S.

Scott, Helen B. See Adkisson, Perry L Seal, Bruce S. See Taylor, Robert E. L. Sears, Paul B.: Fossil maize pollen in Mexico

(letter). v216 p932, 934 28 May 82. Sebastien, P.; Bignon, J.; Martin, M.; Indoor airborne asbestos pollution from the ceiling and the floor. v216 p1410–1413 25 June

Sedell, James R. See Wissmar, Robert C Sedlacek, William A.; Heiken, Grant; Zoller, William H.; Germani, Mark S.: Aerosols from the Soutriere eruption plume of 17 April 1979. v216 p1119–1121 4 June 82. Segrè, Gino: review of The Second Workshop on Grand Unification, edited by Jacques P. Leveille, Lawrence R. Sulak, and David G. Unger. v216 p288 16 Apr 82. Seidel, Robert W.: review of *The Rise of* 

Seider, Hobert W.: review of The Hise of Robert Millikan, by Robert H. Kargon. v216 p851–852 21 May 82. Seif, S. M. See Periow, M. J. Seiler, W. and Conrad, R.: Global carbon monoxide fluxes: inappropriate measure-ment procedures (behpical comment) ment procedures (technical comment). v216 p761 14 May 82.
Sela, Ilan. See Devash, Yair.
Seligman, Martin E. P. See Visintainer, Made-

Ion A.

Selikoff, I. J. See Rohl, A. N.

Severn, Charles. See Chausmer, Arthur B. Shapero, Donald C. See Fowler, William A. Shapiro, Bernard H. See Gupta, Chhanda. Shapiro, Burton L. and Lam, Louis F-H.: Calcium and age in fibroblasts from control subjects and patients with cystic fibrosis. v216

p417–419 23 Apr 82. Shapiro, Harold T. and Heller, Robert: Circular A-21 negotiations (letter). v216 p126 9 Apr 82

Shapiro, I. I. See Kamoun, P. G. Shechter, Yoram; Maron, Ruth; Elias, Dana; Cohen, Irun R.: Autoantibodies to insulin

receptor spontaneously develop as anti-idiotypes in mice immunized with insulin. v216 p542–545 30 Apr 82. Shepherd, John B. *See* Fiske, Richard S.

Sheridan, Peter J. See Blum, Kenneth. Shimada, Izumi; Epstein, Stephen; Craig, Alan K.: Batán Grande: a prehistoric metallurgical center in Peru. v216 p952-959 28 May 82.

May 82.

Shupe, John W.: Energy self-sufficiency for Hawaii. v216 p1193–1199 11 June 82.

Siegel, B. Z. and Siegel, S. M.: Mercury content of *Equisetum* plants around Mount St. Helens one year after the major eruption. v216 p292–293 16 Apr 82.

Siegel, S. M. See Siegel, B. Z.

Siegel, Shepard; Hinson, Riley E.; Krank, Mar-vin D.; McCully, Jane: Heroln "overdose" death: contribution of drug-associated envi-ronmental cues, v216 p436-437 23 Apr

Sigurdsson, Haraldur: Tephra from the 1979 Soufriere explosive eruption. v216 p1106-1108 4 June 82. See also Fiske, Richard S. Silbergeld, Ellen K. and Highland, Joseph: "Ghost dumps" (letter). v216 p462 30 Apr

Simmons, Michael A. See Jones, M. Dougias,

Simon, Sidney A.; McIntosh, Thomas J.; Latorre, Ramon: Influence of cholesterol on water penetration into bilayers. v216 p65-67 2 Apr 82.

Simpson, H.J.; Trier, R. M.; Toggweiler, J. R.; Mathieu, G.; Deck, B. L.; Olsen, C. R.; Hammond, D. E.; Fuller, C.; Ku, T. L.: Radionuclides in Mono Lake, California. v216 p512–514 30 Apr 82.

Sims, John; Rabbitts, Terence H.; Estess, Dies Slaughter Clive: Tucker Philip W.

Pila; Slaughter, Clive; Tucker, Philip W. Capra, J. Donald: Somatic mutation in genes for the variable portion of the immunoglobulin heavy chain. v216 p309–311 16 Apr 82.

Skud, Bernard Einar: Dominance in fishes: the

Skud, Bernard Einar: Dominance in fishes: the relation between environment and abundance. v216 p144—149 16 Apr 82.
Slaughter, Clive. See Sims, John.
Slaughter, Clive A. See Gogolin, Kathryn J. Smith. Cyril Stanley: Damascus steel (letter). v216 p242, 244 16 Apr 82.
Smith, Daniel Scott: review of The Population History of England, 1541—1871, by E. A. Wrigley and R. S. Schofield. v216 p857—859 21 May 82.
Smith, David H. See Gentry, Robert V.
Smith, Hamilton O. See Baltimore, David.
Smith, N. V. and Woodruff, D. P.: Surface spectroscopies with synchrotron radiation. spectroscopies with synchrotron radiation. v216 p367–372 23 Apr 82.
Smith, P. P. K. and Buseck, Peter R.: Carbyne

forms of carbon: do they exist? v216 p984-

986 28 May 82.
Smith, R. Jeffrey (news and comment): Air Force takes aim at a big bird. v216 p270-273 16 Apr 82. An alternative to the MX. v216 p828–830, 832 21 May 82. Another in v216 p828–830, 832 21 May 82. Another in a series of counterforce weapons, v216 p598 7 May 82. Carter's plan for MX lives on. v216 p492–493, 495 30 Apr 82. Competition increasing for use of outer space. v216 p1391 25 June 82. A doomsday plan for the 1990's. v216 p388–390 23 Apr 82. Edwards defends budget cuts at DOE. v216 p716–717 14 May 82. Environmental policies at a contract of the value of value of the value of value of the va tacked. v216 p1394 25 June 82. GAO points up military use of shuttle. v216 p717 14 May 82. Hazardous products may be exported. v216 p1301 18 June 82. The latest on MX. v216 p1207 11 June 82. A legacy of technical problems. v216 p494 30 Apr 82. The mysterious Chinese luggage incident. v216 p1204-1205 11 June 82. NAS calls for arms talks. v216 p716 14 May 82. Pentagon moves toward first-strike ca-pability. v216 p596–598 7 May 82. Reagan proposes to restructure Soviet forces. v216 p1083-1084 4 June 82. Reagan's plan for MX attracts fire. v216 p150-152 9 Apr 82. They have more EMT than we. v216 p32 2. Apr 82. Trucks, trenches, trains, and blimps. v216 p153 9 Apr 82. An upheaval in U.S. strategic thought. v216 p30–31, 33–34 2 Apr 82. Why SUM didn't add up. v216 p832 21 May 82.

Smulow, Jerome B. See Konstantinidis, An-

tonis

Sokol, S. See Fuller, W. H., Jr. Sonnenschein, Carlos. See Konstantinidis, **Antonis** 

Antonis.
Spencer, Derek W. See Honjo, Susumu.
Spira, M. E. See Yarom, Y.
Spotila, James R. See Moreale, Stephen J.
Spring, Kenneth R.: review of Ion Transport by
Epithelia, edited by Stanley G. Schultz.
v216 p978–979 28 May 82.

V216 p9/3-29 28 May 92.
St. Jeor, Stephen. See Taylor, Robert E. L.
Staley, James T. See Wissmar, Robert C.
Standora, Edward A. See Moreale, Stephen J.
Stanley, Michael; Virgilio, Joanne; Gershon,
Samuel: Tritiated imipramine binding sites are decreased in the frontal cortex of sui-

are decreased in the frontal cortex of suicides. v216 p1337–1339 18 June 82.

Starace, Anthony F.: review of *The Theory of Atomic Structure and Spectra*, by Robert D. Cowan. v216 p169–170 9 Apr 82.

Stark, William S. See Eldred, Graig E.

Staudenmaier, John M.: review of *Thomas Alva Edison*, by Wyn Wachhorst. v216 p289–290 16 Apr 82.

Stephenson, J. R. See Groffen, John.

Stephenson, John R. See Twardzik, Daniel R.

Stephenson, John R. See Twardzik, Daniel R. Sterling, Keir B.: review of Big Game in Alaska, by Morgan Sherwood, and Who Ownsthe Wildlife?, by James A. Tober. v216 p1100–1101 4 June 82. Sternberg, D. E.: Van Kammen, D. P.; Lerner, P.; Bunney, W. E.: Schizophrenia: dopamine β-hydroxylase activity and treatment response. v216 p1423–1425 25 June 82. Stevens, John K. See Matin, Leonard. Stevens, Michael D. See Chausmer, Arthur B. Stewart J. M. See Helber, D.

Stewart, J. M. See Heber, D.

Stork, David G. and Levinson, John Z. Receptive fields and the optimal stimulus (technical comment). v216 p204–205 9 Apr

Stos-Gale, Zofia A. See Gale, Noël H. Strom, K. M. and Strom, S. E.: Galactic evolu-

Strom, N. M. and Strom, S. E.: Galactic evolution: a survey of recent progress. v216 p571–580 7 May 82.
Strom, S. E. See Strom, K. M.
Strother, Paul K. See Lenk, Cecilia.
Struble, Robert G.; Cork, Linda C.; Whitehouse, Peter J.; Price, Donald L.: Cholinergic innervation in neuritic plaques. v216 p413-415 23 Apr 82.

Sturrock, Peter A.: Society for Scientific Exploration (letter). v216 p360 23 Apr 82.
Sueiras-Diaz, Javier. See Labrie, Fernand.
Suess, E.; Balzer, W.; Hesse, K.-F.; Müller, P.

J.; Ungerer, C. A.; Wefer, G.: Calcium carbonate hexahydrate from organic-rich sedi-ments of the Antarctic shelf: precursors of glendonites. v216 p1128–1131 4 June 82. Sugimura, Takashi. See Hirakawa, Tadashi. Sulston, John E. See Horvitz, H. Robert.

Sun. Mariorie (news and comment): Animal lovers might monitor labs. v216 p37 2 Apr 82. Bill assigns NIOSH to health institutes. v216 p36–37 2 Apr 82. EPA relaxes hazardous waste rules. v216 p275–276 16 Apr 82. EPewer grants next year, says future NIH director. v216 p602–603 7 May 82. Health coalition backs stronger warning labels. v216 p277 16 Apr 82. Heroin, morphine found comparable as pain-killer. v216 p277 16 Apr 82. NIH developing policy on mis-conduct. v216 p711–712 14 May 82. Use of "super-plus" tampons discouraged. v216 p1300 18 June 82.

Swerdloff, R. S. See Heber, D. Swirsky, David. See Karpas, Abraham. Sworski, Thomas J. See Gentry, Robert V.

Takano, K. See Imawaki, S. Takenaka, Hideo. See Kawashima, Yoshiaki. Tamarkin, Lawrence; Danforth, David; Lichter, Alan; DeMoss, Ernest; Cohen, Michael; Chabner, Bruce; Lippman, Marc: De-creased nocturnal plasma melatonin peak in patients with estrogen receptor positive breast cancer. v216 p1003-1005 28 May

Tassey, Gregory: The potassium effect (letter). v216 p800 21 May 82.

Tauxe, Lisa. See Hsü, Kenneth J. Taylor, Craig D. See Jannasch, Holger W. Taylor, Robert E. L.; Seal, Bruce S.; St. Jeor, Stephen: Isolation of infectious bovine rhinotracheitis virus from the soft-shelled tick Ornithodoros coriaceus. v216 p300-301 16

Apr 82. Tedeschi, Henry. See Kinnally, Kathleen

Tedesco, E. See Gradie, J.
Teissie, J.; Knutson, V. P.; Tsong, T. Y.; Lane,
M. D.: Electric pulse–induced fusion of 3T3 cells in monolayer culture. v216 p537-538 30 Apr 82.

Teramani, Jeffrey L.: Science 81 wins major award (AAAS). v216 p1093-1094 4 June

Teranishi, Tsunenobu. See Negishi, Koroku. Testa, Ivano. See De Pirro, Roberto.

Thackray, Arnold: review of Concise Dictio-nary of Scientific Biography and Dictionary of the History of Science, edited by W. F. Bynum, E. J. Browne, and Roy Porter. v216 p849–850 21 May 82. Thomas, C. E.: Equivalent megatons (letter).

v216 p682 14 May 82.

Thomas, Lewis. See Baltimore, David. Thompson, Richard F. See Mauk, Michael D. Thomson, Donald A. See Dungan, Michael L. Thorell, Lisa G. See Albrecht, Duane G. Todaro, George J. See Twardzik, Daniel R Toggenburger, Gerhard. See Wiklund, Leif.

Toggweiler, J. R. See Simpson, H. J.
Tolley, George S. and Fabian, Robert G.:
review of Environmental Regulation and the U.S. Economy, edited by Henry M. Peskin, Paul R. Portney, and Allen V. Kneese. v216 p1215–1216 11 June 82.

Tom, Roderick. See Moore, Ana L. Torrey, E. Fuller; Yolken, Robert H.; Winfrey, C. Jack: Cytomegalovirus antibody in cere-brospinal fluid of schizophrenic patients de-

brospinal fluid of schizophrenic patients detected by enzyme immunoassay. v216 p892–894 21 May 82.

Towe, Kenneth M.: review of Silicon and Siliceous Structures in Biological Systems, edited by Tracy L. Simpson and Benjamin E. Volcani. v216 p1310 18 June 82.

Traub, Roger D. and Wong, Robert K. S.: Cellular mechanism of neuronal synchronization in epilepsy. v216 p745–747 14 May 82.

Traverse Alfred: review of Geobotany II edited by Robert C. Romans. v216 p616 7 May

Traystman, Richard J. See Jones, M. Doug-

Trent, Carol. See Horvitz, H. Robert. Trier, R. M. See Simpson, H. J. Troeger, Bill W. See Avnimelech, Yoram.

Troyer, Katherine: Transfer of fermentative microbes between generations in a herbiv-orous lizard. v216 p540-542 30 Apr 82. Tsong, T. Y. See Teissie, J. Tucker, H. Allen and Ringer, Robert K.: Con-

trolled photoperiodic environments for food animals. v216 p1381-1386 25 June 82.

Tucker, Peter. See Hsü, Kenneth J. Tucker, Philip W. See Sims, John. Turner, D. C. See Carbonetto, S. T.

Twardzik, Daniel R.; Todaro, George J., Mar-quardt, Hans, Reynolds, Fred H., Jr., Stephenson, John R.: Transformation induced by Abelson murine leukemia virus involves production of a polypeptide growth factor. v216 p894-897 21 May 82.

#### U and V

Ungerer, C. A. See Suess, F. Urton, Gary: review of Code of the Quipu, by Marcia Ascher and Robert Ascher. v216 p869-870 21 May 82

Valiela, Ivan: review of The Ecology of a Salt Marsh, edited by L. R. Pomeroy and R. G. Wiegert. v216 p509–510 30 Apr 82. Vallari, Robert C. and Pietruszko, Regina:

Human aldehyde dehydrogenase: mechanism of inhibition by disulfiram. v216 p637– 639 7 May 82.

Van de Ven, Wim. See Groffen, John. Van Kammen, D. P. See Sternberg, D. E. van Wimersma Greidanus, T. B. See Watson,

Varmus, Harold E.: Form and function of retroviral proviruses. v216 p812–820 21 May 82. Veilleux, Raymonde. See Labrie, Fernand.

Vermeersch, P. M., Otte, M.; Gilot, E.; Paulissen, E.; Gijselings, G.; Drappier, D.; Blade technology in the Egyptian Nile Valley: some new evidence. v216 p626–628 7 May

Vesely, David L.: Biotin enhances guanylate cyclase activity. v216 p1329–1330 18 June

Vetter, Betty M. and Babco, Eleanor L.: New data show slow changes in science labor force (AAAS), v216 p1094-1095 4 June 82. Vigneri, Riccardo. See Purrello, Francesco. Vilcek, Jan. See Preble, Olivia T.

Villachica, J. Hugo. See Sanchez, Pedro A. Virgillio, Joanne. See Stanley, Michael. Visintainer, Madelon A.; Volpicelli, Joseph R.; Seligman, Martin E. P.: Tumor rejection in

rats after inescapable or escapable shock. v216 p437-439 23 Apr 82.

Viveros, O. Humberto. See Daniels, Alejandro

Volpicelli, Joseph R. See Visintainer, Madelon. Von Herzen, Richard P. See Mangelsdorf, Paul C., Jr.

Waldrop, M. Mitchell (research news): Asteroids in rings. v216 p42 2 Apr 82. Astronomy and astrophysics for the 1980's. v216 p282 16 Apr 82. Dreams of preplanetary fire. v216 p607 7 May 82. A hole in the Mily Way. v216 p838–839 21 May 82. Imaging way. V216 pos6-659 21 May 62. Integrity the earth (III): the politics of Landsat V216 p40-41 2 Apr 82. In quest of comet Halley v216 p606 7 May 82. In search of the magnetic monopole. V216 p1086-1088 4 June 82. Neutrinos: no oscillations? V216 p605 7 May 82. The new technology telescopes. v216 p280-281 16 Apr 82. Operation Spacewatch. v216 p42 2 Apr 82. The origin of the moon. v216 p606-607 7 May 82. University researchers lobby for space

science. v216 p157 9 Apr 82. (news and comment): DOD may have to pay its way on the shuttle. v216 p1085 4 June 82. Jet Propulsion Lab[oratory] director to resign. v216 p276 16 Apr 82. NASA struggles with space shuttle pricing. v216 p278–279 16 Anr 82

Walfield, Alan M.; Hanff, Philip A.; Lovett, Michael A.: Expression of Treponema palli-dium antigens in Escherichia coli.. v216

p522-523 30 Apr 82. Walker, J Knox. See Adkisson, Perry L. Walker, Judith B.: Modulation of spasticity: prolonged suppression of a spinal reflex by electrical stimulation, v216 p203-204 9 Apr

Walker, Thomas J.: review of The North American Grasshoppers, by Daniel Otte, v216 p875 21 May 82

Wallace, Anthony F. C .: review of Emulation and Invention, by Brooke Hindle, v216 p853-854 21 May 82.

Walsh, John (news and comment): China, United States set science policy dialogue. v216 p1297–1298 18 June 82. France readverto president allow verto protections are research law. verto protect and were research law. verto protect and were research reforming higher education—again. verto p834–835 21 May 82. "Lack of reciprocity" prompts IIASA cutoff. verto p35 2 Apr 82. New England educations of the pass of the p tion's competitive edge dulled, v216 p157 9 Apr 82. Poland, United States exchange expulsions, v216 p966–967 28 May 32. Reagan changes course on nonprolifera-tion. v216 p1388–1389 25 June 82. Reori-enting CNRS. v216 p713 14 May 82. Scieducation-déjà vu revised. v216

p963 28 May 82.
Wang, Nancy. See Kiang, David T.
Ward, Douglas F. and Gottesman, Max E.:
Suppression of transcription termination by

Suppression of transcription termination by phage lambda. v216 p946–951 28 May 82. Ward, Peter D.: review of *The Ammonites*, by Ulrich Lehmann. v216 p726 14 May 82. Warren, John T. See Mauk, Michael D. Wasserman, Gerald S.: review of *Comparative Color Vision*, by Gerald H. Jacobs. v216 p727-728 14 May 82.

Watkins, Linda R. and Mayer, David J.: Organization of endogenous opiate and nono-piate pain control systems. v216 p1185-1192 11 June 82.

1192 11 June 82.
Watson, A. J. See Donahue, T. M.
Watson, James D. See Baitimore, David.
Watson, S. J.; Akil, H.; Fischli, W.; Goldstein,
A.; Zimmerman, E.; Nilaver, G.; van Wimersma Greidanus, T. B.: Dynorphin and
vasopressin: common localization in magnocellular neurons. v216 p85–87 2 Apr 82.
Webb, Paul W.: review of Life in Moving
Fluids, by Steven Vogel. v216 p1309–1310

18 June 82.

Wefer, G. See Suess, E. Weinberg, Alvin M. See Burwell, Calvin C. Weiss, J. Woodrow; Drazen, Jeffrey M.; Coles, Nancy, McFadden, E. Regis, Jr.; Weller, Peter F.; Corey, E. J.; Lewis, Robert A.; Austen, K. F.: Bronchoconstrictor effects of leukotriene C in humans. v216 p196-198 9 Apr 82.

9 Apr 62.
9 Apr 62.
9 Apr 62.
9 Apr 62.
Weissert, Helmut. See Hsü, Kenneth J.
Weissman, Robert M. See Luk, Gordon D.
Welch, Christopher S. See Hayward, Don.
Weller, Peter F. See Weiss, J. Woodrow.
Welsh, Michael J.; Aster, Jon C.; Ireland,
Mark; Alcala, Jose; Maisel, Harry; Calmodulation

lin binds to chick lens gap junction protein in a calcium-independent manner. v216

a calrium-independent manner. v216 p642-644 7 May 82.
White, Francis J. and Appel, James B.: Lysergic acid diethylamide (LSD) and lisuride: differentiation of their neuropharmacological actions. v216 p535-537 30 Apr 82.
White, Gilbert F.: Ten years after Stockholm (editorial) v216 p569 7 May 82.
Whitehouse, Peter J. See Struble, Robert G. Wiklund, Leif; Toggenburger, Gerhard; Cuénod, Michel. Aspartate: nossible neurotrans-Michel: Aspartate: possible neurotrans-mitter in cerebellar climbing fibers. v216

p78-80 2 Apr 82.

Wiley, Ronald G.; Blessing, W. W.; Reis, Donald J.; Suicide transport: destruction of neurons by retrograde transport of ricin, abrin, and modeccin. v216 p889-890 21

Williams, Alan F. and Gagnon, Jean: Neuronal cell Thy-1 glycoprotein: homology with immunoglobulin. v216 p696-703 14 May

Luca

Williams, Jerry R. See Frank, Joseph P. Williams, R. Michael. See Like, Arthur A. Williams, W. J. See Romick, G. J. Williamson, Samuel J. See Romani, Gian

Willott, James F. and Lu, Shao-Ming: Noiseinduced hearing loss can alter neural coding and increase excitability in the central ner vous system. v216 p1331-1332 18 June

Winfrey, C. Jack. See Torrey, E. Fuller. Wing, Richard M. See Dickerson, Richard E. Winograd, Isaac J. and Robertson, Frederick N.: Deep oxygenated ground water: anomaly or common occurrence? v216 p1227-1230 11 June 82.

Winograd, Nicholas. See Garrison, Barbara

Wirsen, Carl O. See Jannasch, Holger W. Wissmar, Robert C.; Devol, Allan H.; Staley, James T.; Sedell, James R.: Biological re-sponses of lakes in the Mount St. Helens blast zone. v216 p178–181 9 Apr 82. Wissmar, Robert C.; Devol, Allen H.; Nevissi,

Ahmad E.; Sedell, James R.: Chemical

changes of lakes within the Mount St. Helens blast zone. v216 p175–178 9 Apr 82. Wolff, George T.: Acid precipitation (letter). v216 p1172 11 June 82. Wong, Robert K. S. See Traub, Roger D.

Wood, J. M.; Moura, Isabel; Moura, J. J. G.; Santos, M. H.; Xavier, A. V.; LeGall, J.; Scandellari, M.: Pole of vitamin B<sub>12</sub> in meth-yl transfer for methane biosynthesis by Methanosarcina barkeri. v216 p303–305 16

Wood, Jack: review of Cellular Basis of Chemical Messengers in the Digestive System, edited by Morton I. Grossman, Mary A. B. Brazier, and Juan Lechago. v216 p1103-1104 4 June 82.

Woodhead, S. See Bernays, E. A.
Woodruff, D. P. See Smith, N. V.
Woods, David C. and Chuan, Raymond L.:
Fine particles in the Soufriere eruption
plume. v216 p1118—1119 4 June 82.

Wrather, Joan: Scientists call for "national commitment" at Senate hearings (AAAS). v216 p611–612 7 May 82.

Wray, Larry K. See Gogolin, Kathryn J. Wrenn, John H. and Beckman, Scott W.: Maceral, total organic carbon, and palynological analyses of Ross Ice Shelf Project site J9 cores. v216 p187-189 9 Apr 82

Wright, Anthony A. See Sands, Stephen F. Wright, H. E., Jr., and Janssens, Jan A.: review of Peat Stratigraphy and Climatic Change, by K. E. Barber. v216 p616–617 7 May 82.

Wright, John W. and Harding, Joseph W.: Recovery of olfactory function after bilateral bulbectomy. v216 p322–324 16 Apr 82. Wright, Ramil. See Hsū, Kenneth J.

## X, Y, and Z

Xavier, A. V. See Wood, J. M.
Yackel, James W. See Bayer, Shirley A.
Yaffe, Sumner J. See Gupta, Chhanda.
Yahr, Melvin D. See Plaitakis, Andreas.
Yarom, Y. and Spira, M. E.: Extracellular
potassium ions niediate specific neuronal
interaction. v216 p80–82 2 Apr 82.
Yolken, Robert H. See Torrey, E. Fuller.
York, D. G. See Jura M. York, D. G. See Jura, M.
Young, David. See Matin, Leonard.
Youngner, Julius S. and Berns, Kenneth I.:
NIH funding (letter). v216 p798 21 May 82.
Yue, G. K. See McCormich, M. Patrick.
Zabriskie, John B. See Lyons, Michael J. Zeneroli, Maria L. See Buraldi, Mario.
Zhang, Hui-Jian. See Kiang, David T.
Zill, Sasha N. and Moran, David T.: Suppression of reflex postural tonus: a role of peripheral inhibition in insects. v216 p751–753

14 May 82.

14 May 82. Zimmer, György: International scientific exchange: additional views (letter). v216 p124, 126 9 Apr 82. Zimmerman, E. See Watson, S. J. Zoller, William H. See Sedlacek, William A. Zuckerman, J. J. See Schumann, Herbert.

## **Information for Contributors**

The Editors of Science

Papers published in Science often receive far more attention than papers published in specialty journals. As a consequence, the rate of submission of papers is high-about 5000 manuscripts are submitted each year. The rejection rate of about 80 percent contrasts with that of most specialty journals, which is usually about 30 percent. Most of the material submitted to Science is of good quality and worthy of publication, and virtually all the scientific papers are eventually published somewhere. In selecting papers for Science, the editors must consider the needs of a broad audience. Insofar as the input of manuscript permits, preference is given to items that seem to be of general significance.

### **General Information**

Four types of signed papers are considered: Articles, Reports, Letters, and Technical Comments. The author's membership in the AAAS is not a factor in selection. Papers are considered with the understanding that they have not been published and are not under consideration elsewhere. Authors will usually be notified of acceptance, rejection, or need for revision in 6 to 8 weeks (Reports) or 8 to 10 weeks (Articles).

Outside reviews. Almost all Articles and Reports, including those solicited by the editor, are sent to two or more outside referees for evaluation. Referees suggested by authors are used at the discretion of the editors. Papers that depend on statistical inferences for their conclusions may be sent to statisticians (in addition to other referees) for review.

Length limits. Papers that exceed the length limits cannot be handled expeditiously and in some cases will be returned without review. The limits are stated below in number of pages based on standard-size pages (8½ by 11 inches) typed with double spacing throughout (including the references and notes) and with 1-inch margins.

1) Articles: Up to 20 pages of text, including the references and notes, and

one table or figure for approximately every three manuscript pages.

 Reports: Up to seven pages of text, including references and notes, and two tables or figures that together will occupy no more than half a printed page.

3) Letters: Up to 250 words.

4) Technical Comments: Up to two pages of text, including references and notes.

## Selection of Manuscripts

1) Articles: About half the Articles published in Science are solicited by the editor. Both solicited and unsolicited Articles undergo outside and in-house review. Articles are expected to (i) provide a review of new developments in one field that will be of interest to readers in other fields. (ii) describe a current research problem or a technique of interdisciplinary significance, or (iii) present a study of some aspect of the history, logic, philosophy, or administration of science or a discussion of science and public affairs. Readers should be able to learn from a technical Article what has been firmly established and what are significant unresolved questions; speculation should be kept to a minimum. Preference is given to Articles that are well written, well organized, and within the length limit. Balance of subject matter in Science is an important consideration when a choice is made between acceptable Articles.

2) Reports: Reports are selected on the basis of reviewers' comments and an in-house review. Reports are expected to contain solid research results or reliable theoretical calculations. Preference is given to those that describe departures or discoveries that will be of broad interdisciplinary interest or of unusual interest to the specialist. In making the final selection, the editors take into consideration (i) the reviewers' comments: reports most likely to be accepted are those that receive persuasive outside reviews favoring publication; (ii) clarity of presentation within the prescribed length

limit; and (iii) subject matter in relation to that of other papers on hand. An attempt is made to balance the subjects of Reports so that one discipline is not overrepresented to the exclusion of others.

3) Letters: Letters are selected for their pertinence to material published in Science or because they discuss significant problems of interest to most scientists. Letters of a highly technical nature are usually transferred to the Technical Comments section. Letters pertaining to material published in Science may correct errors, provide support or agreement, offer different points of view, clarify, or add information. Outside reviewers may be consulted on questions of accuracy. Insinuations and conjecture about another author's motives, abilities, or intelligence are considered inappropriate for publication. The selection of letters is intended to reflect the range of opinions received.

4) Technical Comments: Technical Comments may be selected for publication if they express significant criticisms of papers published in *Science* or offer useful additional information. Technical Comments are usually sent for an opinion to the authors of the original papers before being reviewed. Discussions of minor issues or priority claims are not deemed appropriate, nor are questions that can be resolved by correspondence between the critic and the original authors.

Book Reviews: The selection of books to be reviewed and of reviewers is made by the editors.

#### Submission of Manuscripts

Submit an original and two duplicates of each manuscript together with a letter of transmittal giving:

- the name(s) and telephone number(s) of the author(s);
- the title of the paper and a statement of its main point;
- the names, addresses, telephone numbers, and fields of interest of four to six persons in North America but outside your institution who are qualified to referee your paper;
- 4) the names of colleagues who have reviewed your paper; and
- the fields of interest of readers who may want to read your paper.

## **Manuscript Preparation**

Typing. Use double spacing throughout the text, tables, figure legends, and references and notes.

Units of measure. Use metric units. If measurements were made in English units, give metric equivalents.

Symbols and abbreviations. Define all symbols, abbreviations, and acronyms.

References and notes. Number references and notes in the order in which they are cited in the text. Place references cited only in tables or figure legends after the text references. Gather all acknowledgments into a single, brief statement at the end. Use Bibliographic Guide for Editors & Authors (American Chenical Society, Washington, D.C.) for abbreviations of journal titles. For journals not listed there provide the full title. Use the following forms:

For a journal paper: H. Smith, Am. J. Physiol. 98, 279 (1931).

For a book: F. Dachille and R. Roy, Modern Very High Pressure Techniques (Butterworth, London, 1961), pp. 163-180.

For a paper in a compilation: F. Dachille and R. Roy, in *Reactivity of Solids*, J. H. de Boer, Ed. (Elsevier, Amsterdam, 1960), p. 502.

For unpublished material: A. Giraud, paper presented at the American Nuclear Society Conference, Washington, D.C., November 1976.

Illustrations. For each illustration submit three copies of a quality suitable for reproduction. Label each on the back with the name of the author and the figure number. Plan figures for the smallest printed size consistent with clarity. Color may be used if necessary but authors are billed accordingly. Cite all illustrations in the text and provide a brief legend for each.

Tables. Type each table on a separate sheet, give it a number and title, and cite it by number in the text. Give each column a heading. Indicate units of measure in parentheses in the heading for each column, and do not change the unit of measure within a column.

Equations and formulas. Use quadruple spacing around equations and formulas that are to be set off from the text. Define all symbols.

## **Special Requirements and Procedures**

1) Articles: Provide a title of one or two lines of not more than 26 characters and spaces each; a brief author note giving your position and address; and a summary of 50 to 100 words. The summary should convey to the general reader the main point of the paper and outline the results or conclusions. The introduction should portray the broad significance of the work, and the whole text should be intelligible to scientists in different disciplines. Explain all technical terms likely to be known in only one field. Insert short subheadings at appropriate places in the text to mark your main ideas. Provide a reference list in accord with Science style. Reference lists should not be exhaustive; citation of a single review article can often replace many references. A maximum of 40 references is suggested.

2) Reports: Provide a title of one or two lines of not more than 54 characters and spaces each, and an abstract of 50 to 75 words. The abstract and the first portion of the report should portray for the general reader the results described and their significance. The body of the report should be intelligible to scientists in other fields of expertise. Complete documentation need not be presented but should be available in cited references.

3) Letters: Letters should be short (up to 250 words) and to the point; they should be carefully phrased, free of technical jargon, and nonrepetitive. When a Letter refers to an Article published in Science the original author is usually given an opportunity to reply. Letters are frequently shortened and edited. Letters are acknowledged by postcard; authors are notified if their letters are accepted for publication. Letters must be typed with double spacing.

4) Technical Comments: Technical Comments on Reports or Articles are published at the end of the Reports section. When a Technical Comment is accepted for publication the authors of the

original paper are usually given an opportunity to reply.

Book Reviews: Instructions accompany review copies when they are sent to reviewers.

## **Printing and Publication**

Editing. Before being sent to the printers, papers are edited to improve accuracy and effectiveness of communication. When changes are needed because the author's meaning is not clear, the editor may consult the author by telephone; when the editing is extensive, the manuscript may be returned to the author for approval or further adjustment before the type is set.

*Proofs*. One set of galley proofs is provided for each paper. Alterations should be kept to a minimum and marked only on the proofs. Extensive alterations may

delay publication.

Scheduling. Papers are not scheduled for publication until Science has received corrected galley proofs from the authors. The median delay between acceptance of papers and mailing of galley proofs to authors is 4 to 8 weeks (allowing for editing and typesetting); the median delay between receipt of authors' galley proofs by Science and publication is 4 to 6 weeks (allowing for proofreading, layout, and paging). There may be additional delays in publication for papers with tables or figures that present problems in layout and for papers accompanying cover pictures.

Reprints. An order blank for reprints accompanies proofs.

## **Cover Photographs**

Particularly good photographs that pertain to a paper being submitted will be considered for use on the cover. Submit prints (not slides, negatives, or transparencies) together with the manuscript, and indicate in the letter of transmittal that a possible cover picture is enclosed.

